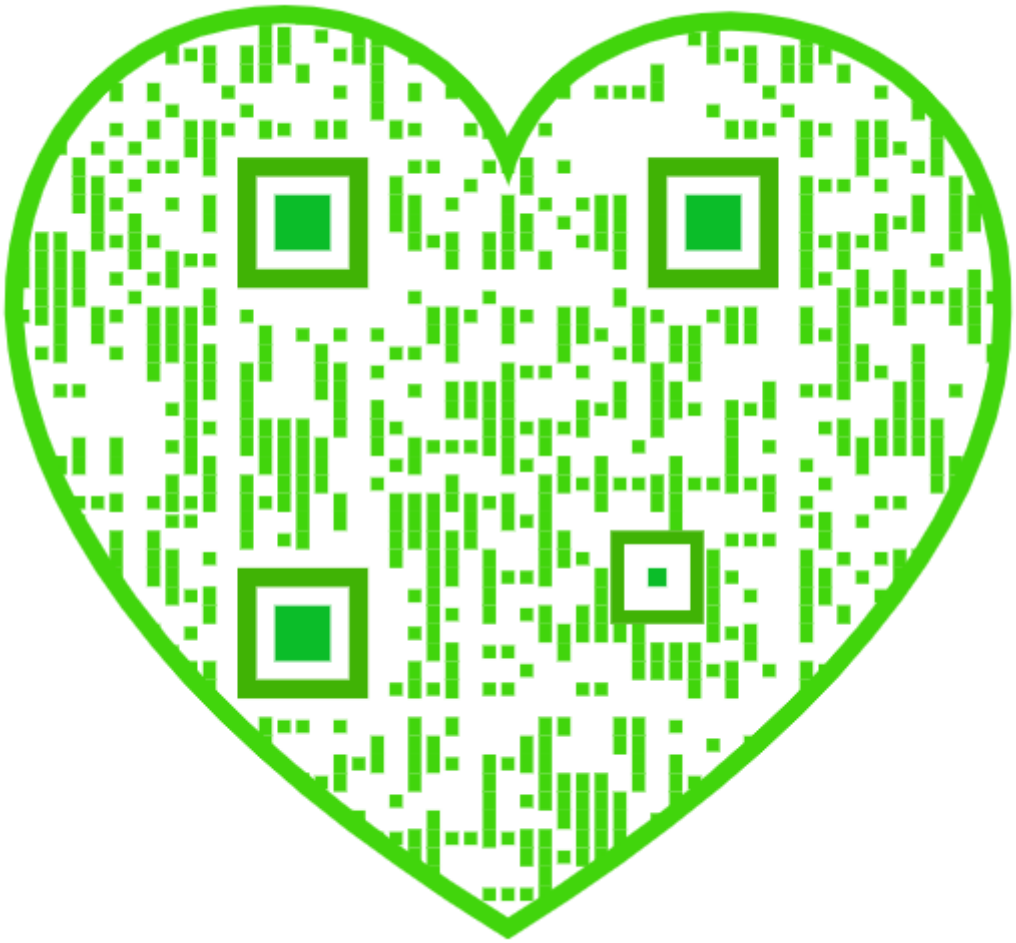

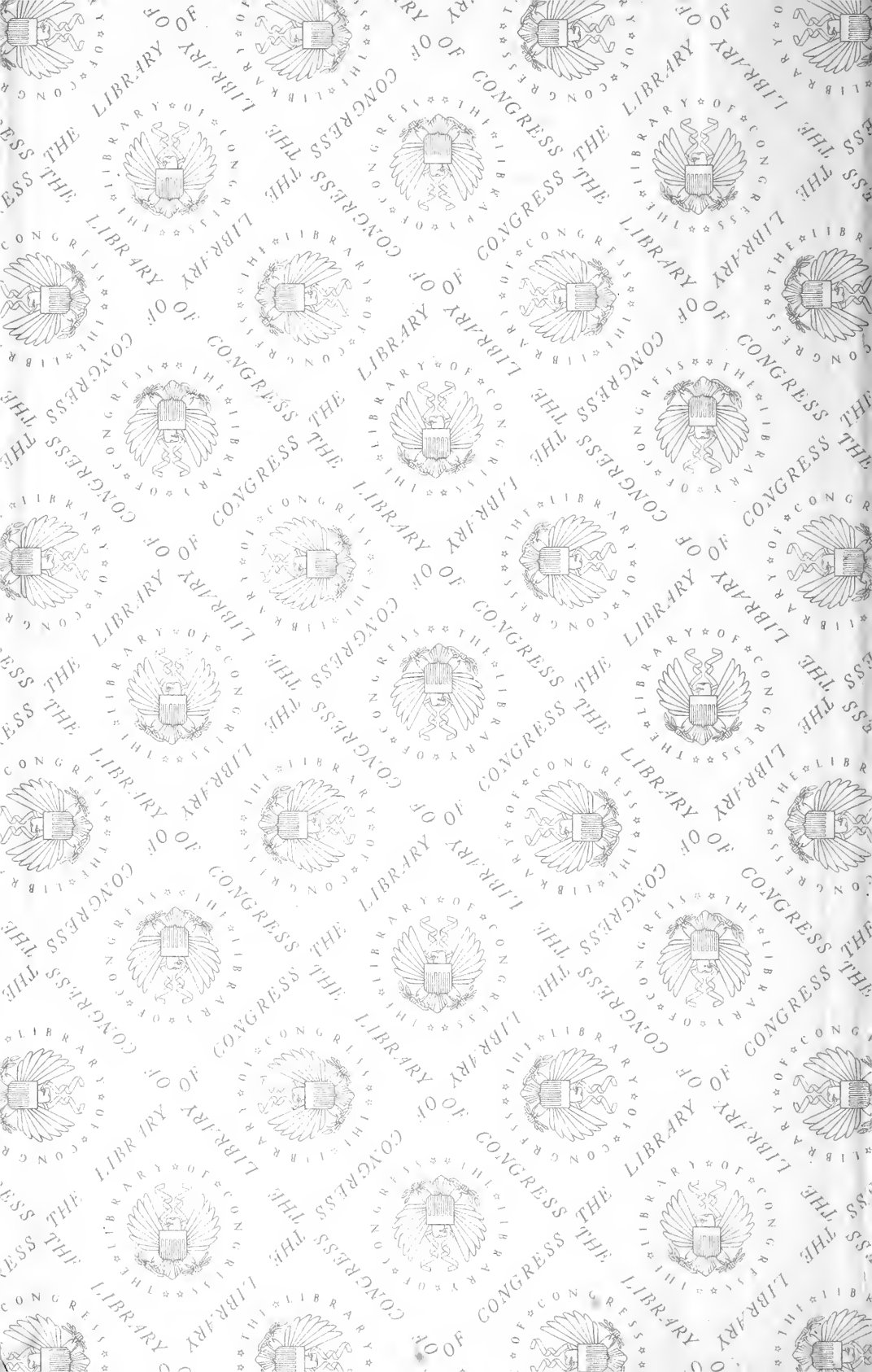
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THE RICARDIAN RENT THEORY IN EARLY AMERICAN ECONOMICS

BY THE SAME AUTHOR

INTRODUCTION TO ECONOMICS, 1919

THE RICARDIAN RENT THEORY

IN EARLY AMERICAN ECONOMICS

A DISSERTATION

Presented to the
Faculty of Princeton University
in Candidacy for the Degree of
Doctor of Philosophy

By

JOHN ROSCOE TURNER

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INTRODUCTION

BY

FRANK ALBERT FETTER

OF

PRINCETON UNIVERSITY

INTRODUCTION

THE writings of the early American economists which are surveyed in this study have been strangely neglected by the later generations of American students. The article by Professor C. F. Dunbar, published in *The North American Review* in 1876, is the only previous American essay purporting to treat the subject. But Dunbar's article consisted almost entirely of a description of American conditions as explaining what he declared to be the utter "sterility" of American economic literature. The brief portion in which he spoke of writers is hardly more than a catalogue of names and titles compiled from previous reviews. Certainly in some cases, as Doctor Turner shows, and possibly in most, Dunbar was unacquainted with the originals. Even if he had read the books, he, as a representative of the classical school [1] (which he believed had arrived at ultimate truths within the limits of its hypotheses), was not qualified to render a just estimate of the theories in question, however competent he was in the field of money and banking.

Forty years have passed, and is it not indeed remarkable that our generation of economic students, so thoroughly grounded otherwise in the world's literature of economics, should know little or nothing of these, our own, writers, and most of that little through Dunbar's superficial and condemnatory article or through chance and usually disparaging references in the writings of English economists? That the American economists of

[1] See his article in *The Quarterly Journal of Economics,* I, 1, 1886.

the period preceding 1880 have been almost ignored in Europe is not remarkable, but that they should have been so forgotten and neglected by their own countrymen since economic studies have been so zealously fostered in America, is indeed surprising.

If we speculate upon an explanation of this neglect, two reasons suggest themselves. The first is the poor estimate of the learning and equipment of the early American economists in comparison with their English contemporaries; the second is the dominance of the Ricardian economics in America, especially after J. S. Mill's work gave it a new appeal and a new vogue among American readers. Perhaps these are but two aspects of the same reason.

Doubtless the prevailing opinion is that, in the period from 1815 to 1870 (let us say), the development of economics in England was in the hands of men of good general and special education—trained economists, to use the modern term—whereas, it is thought, American writers of that time were ill-trained amateurs, publicists, and pamphleteers. We forget that there were in England at that time no "trained economists" whatever, such as we now understand by that term applied to men who prepare by long studies under competent teachers for an academic life-career. British economists were self-educated, having had the practical training, and retaining many of the pecuniary interests as well as prejudices of business men, as did Ricardo, Cobden, and Bright; or, having followed the life of a soldier, as Col. Torrens, or of a lawyer and politician, as Lord Lauderdale; or being occupied as government clerks as were James Mill (a licensed preacher) and J. S. Mill (most peculiarly trained by his father); and even when, by accident rather than by design, one of them came to be a "pro-

fessor," he had been educated as Malthus, Jones, and Whately were, for the church, or as Nassau Senior, Longfield, McCulloch, and Cairnes, for the practice of the law.

It must shake the preconceptions of many readers to compare with these typical examples of the English economists of that time, the American economists whose education and experience are carefully described in the following pages. These include graduates of nearly all the leading universities or colleges of that time in England and America—lawyers, business men, mathematicians, natural scientists, philosophers, men of wide travel and of varied experience in public and private affairs, a large proportion of them being college teachers. They would seem to have been quite as well—and as ill—fitted as were their English contemporaries, either to give a sound economic interpretation of their environment or to deal with abstract principles. But after J. S. Mill had won for Ricardian economics its predominating place in American thought, that system, with all its unrecognized limitations of time, place, and logic, became the standard of economic science with which any independent thought upon our peculiar problems was measured and found wanting.

The time was not ripe for a re-examination of these opinions until the new era of criticism dating from the Seventies had slowly yielded some fruits in England and America. Partly this criticism was of a historical nature and tended to show the fallible, temporary, and local character of the Ricardian economics. That too, was seen to be of mortal nature like American economic opinion, and not an eternal verity. An article in *The Fortnightly Review,* October, 1880, by Cliffe Leslie, who recognized something of "perspicuity," novelty, and dis-

tinctiveness, and some small measure of relative worth in the American writings, was long the only result of this impulse so far as it concerns the present subject. The first American students who returned from Germany imbued with historical teachings, made slight beginnings at a re-examination of older doctrines; but, in most cases, their historical training was hardly more than a veneer over the groundwork of their Ricardian opinions earlier acquired at home. With all of its cultivation of the historical sense and of the ideas of historical relativity and continuity of doctrine, the first generation of mature economists thus trained has mostly been content to see these principles applied in explanation of the origin of the rent doctrine in England, without apparently permitting its faith in the logical completeness of that doctrine to suffer the least shock. Meantime, the earlier American material has lain almost untouched and unworked. It was with this need and opportunity in mind that, several years ago, I suggested the subject of this study to the author.

Partly the newer criticism has been of an analytical and logical character, applying new and more rigid tests to old doctrines. It began with Jevons, Menger, and Clark (in *The Philosophy of Wealth,* 1884), and has been continued by many men in many lands. Probably nowhere in the world has it had so wide and deep an influence as here in America. In all the flowering of opinions and publications in the field of theory, there has been, to be sure, a tremendous waste of blossom; but the best fruitage is a small group of younger economists with better critical methods of study, with clearer economic concepts as instruments of thought, with a more consistent scheme of terminology, and with a spirit of scholarship that is broader, less sectarian, and more

detached from temporary interests when dealing with fundamental principles.

The present study is an outcome of this newer criticism as applied to the earlier economic writings. It is far from a full and perfect fruition, as the author recognizes, but it contains promise of larger returns in the future. The task undertaken was limited to one theme, the rent doctrine and its necessary implications in the theory of population and in the law of diminishing returns. The author has pursued his task with diligence and with affectionate interest through many libraries, until he has made it peculiarly his own. Most of the writers that he has studied had pronounced opinions on the political issues of their day; but the reader will seek in vain for any trace of partisanship in the following pages. The study seems to have been made with an eye single to the interpretation of the abstracter economic doctrines of that period, and the author knows neither Greek nor Trojan as respects the practical interests and influences that helped to shape these economic doctrines. The author employs, however, as instruments of analysis, certain concepts and terms found in the recent psychological economics; for, without a new point of view and a new mode of attack, it would have been vain to take up the study of these discarded materials. One must have some thread in hand or be lost in the maze of confused opinions.

The usual effect of the industrial environment upon the economic theory of that period in America, appears with striking clearness; even the exceptions, as presented by Doctor Turner, are instructive. Few of the men whose opinions are reviewed had the slightest personal connection with one another; and in few cases were they even acquainted with one another's writings.

Yet, with an approach to unanimity, they came to the same conclusion on the population question, often, it is true, by reasoning that is palpably erroneous. They denied, with almost as close approach to unanimity, the "orthodox" contrast between land and capital in the sense of artificial agents (and again the exceptions are suggestive). They conceived of capital in terms of value in relation to investment, and of land as one of the kinds of material agents in which capital was invested. One after another, independently, various writers came to this view, usually supposed to have been original with Carey and to have been confined to his school. Many of them held to this idea persistently, despite the influences of the English economic writings which were almost their sole literary guidance. These facts throw light, not less upon the relativity of the English than of the American economic theory of that era.

At the period at which this study stops, the English classical system was reasserting its influence in America, and, in the alluring form which J. S. Mill gave it, was taking its dominating place in American collegiate instruction. There it continued for half a century—and still in some measure continues—to exert its benumbing effects upon American economic thought. Vigorous new life-currents, however, began to stir with Francis A. Walker's dissent from the wage fund, and with his stimulating, though inconclusive, theory of profits. Then in turn came vital impulses of one kind or another from more recent authorities. A recent European critic, in a review of this active intellectual movement—a review most remarkable in its range and grasp of and insight into the literature—plainly told his European readers that America had become the new center of economic theory. [2]

Now the most notable impression left by Doctor Turner's study, perhaps, is that of a certain likeness between such of those earlier American opinions as were not mere echoes of Ricardianism, and the more recent American concepts and theories. True, it will not do to press the comparison in all directions and without limits (especially since, with changed conditions, the population doctrine has taken on a new form differing from either of the older forms). But the likeness appears clear in the recognition of the conflict between individual and social interests (denial of the economic harmonies), in the attitude toward the theory of value, in the treatment of capital as an investment concept, and in the rejection of the twofold classification of material factors as land and artificial agents. Perhaps when some Americans recently have fondly supposed that they were discovering novel and original conceptions, they were but beginning to regain a little of that independence of mind which once enabled the American economists in their theorizing to look past conventional ideas and to catch, now and then, glimpses of the world of reality about them.

It would, however, be a reproach to this generation if, with a superior equipment, it did not attain to something more nearly ultimate in principles than did our more or less empirical forebears. Progress is not to be made by ignoring former opinions whether English or American, but by more thoroughly appreciating the truth and error in them when studying them with a new critical spirit, by the aid of recent biology and psychology, and in the light of the rich economic experience of the hundred years between 1815 and 1915. Doctor Turner's study fittingly appears after a century of the

[2] J. Schumpeter, in *Jahrbuch für Gesetzgebung*, etc., 1910, 913.

Ricardian rent doctrine. As pioneer work in a part of an almost untouched field, it will be helpful to every economic student seriously striving to know "the God of things as they are."

F. A. F.

Princeton University.

AUTHOR'S PREFACE

STUDENTS of the history of economic thought have inexcusably neglected the early American economists. This neglect was a subject of frequent comment in the seminar of the professor under whom I majored, Dr. Frank A. Fetter. He encouraged me to make a study of their works, calling particular attention to their attitude toward Ricardian rent. Following this suggestion, I read the life and works of these economists. I found them worthy, but without fame. I believed then, and now know, that no systematic study has been made of their contributions. It is hoped that this essay, at least in part, may serve to reveal their merit to public attention. Although I was inadequately prepared for the task, this study was begun and completed while I was a graduate student. It is offered for publication precisely as when completed, now eight years ago, with the exception that a tedious sixty-page critique of Ricardo's rent doctrine for the most part is omitted.

When the study was begun, I was fresh from a perusal of the writings of the late General Francis A. Walker, in which the reader was taught to believe that he who differs from Ricardo's rent "simply does not know what he is mouthing about." This faith was upset, however, while reading the works of that keen witted philosopher, economist, and statesman, George Tucker of Virginia. The new faith received from Tucker caused me to do battle against Ricardo, but my present judgment causes me to eliminate the greater part of this critique; for, while interesting to the author, it would prove tiresome for the reader.

The purpose of presenting Ricardo's views in the beginning of the study is that they form a basis for the controversial arguments presented by the economists we shall study. To this end, a critical estimate of the essential features of the theory will reveal its elements of strength and weakness, and will prepare the reader for a more analytical study of its content. The logician would doubtless know the theory first and hear the criticism last: the pedagogue would find it both helpful and interesting not to defer the criticism in order to open up the question by setting forth the essential issues involved.

J. R. T.

New York University,
May, 1921.

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THE RICARDIAN RENT THEORY IN EARLY AMERICAN ECONOMICS

CHAPTER I

INTRODUCTION: CRITIQUE OF RICARDIAN RENT

A WELL-ROUNDED study of the attitude of American economists toward the Ricardian theory of rent would call for more than a review of the expressions made by these economists; it would call for a consideration of the environment which was powerful in shaping their thought as well as for a deep appreciation of the major problems confronting them. Furthermore, the reader would profit little by studying a criticism of Ricardo's teachings unless he knew what it was that Ricardo taught. And he could not comprehend Ricardo's thought unless he knew the industrial conditions in England during the first part of the nineteenth century, for indeed it was from these conditions that his thought grew.

Fortunately, however, Edwin Cannan and others have made familiar the circumstances which gave rise to the Ricardian teachings on over-population, diminishing returns, and differential land-rent. Then too, the differential theory of rent and the conclusions deduced therefrom have been repeated to the point of tiresomeness. The language in which this theory was originally couched is familiar to every economist; but it is only the language that is familiar, for there has never been agreement upon the theory itself.

"The early nineteenth-century English economists deduced their doctrines, not from study of the works of

their predecessors, but from the actual experience of England during the war." [1] The history of this experience, as above indicated, has been told so frequently by others that I shall not repeat it here. It was the nature of this experience that gave the temper and tone to the writings of the British economists. But, on this side of the water, it was an entirely different type of experience that gave rise to an entirely different type of economic thought. American writers regarded the Malthо-Ricardian theory as an enemy of progress, and held it in contempt as a doctrine that would hail a famine as a deliverer and celebrate a pestilence as an occasion for a thanksgiving. The outlook of American economists was aggressive, versatile, and optimistic. No class was over-rich, nor was any class miserably poor. Novel conditions, both political and physical, were ours. Charged with the mission of subduing a new world, separated from the troubles of the old world by two oceans, and possessed of a new form of government, we had unique problems to face. If our development of economic thought was less rapid than that of the English, there is little wonder; for why should Americans strive to develop a science for the correction of ills that hardly existed? Industrial ills furnished the motive for economic development in England: the insatiable desire for the increased production of wealth furnished the motive for economic development in the United States. Following these motives, it was but natural that reckonings on distribution should occupy a paramount place in the writings of the English. Likewise we should expect an economy of prosperity to be uppermost in American thought.

[1] Cannan, *Theories of Production and Distribution*, 148.

Furthermore, our institutions of learning neglected the development of this science. In our seminaries and colleges, excessive importance was given to the classics while little or no attention was given to the subject of political economy. The study of constitutional law and the interpretation of written instruments engaged the attention of public men. In the early part of the period we are to review, the currency and the tariff, and in the latter part, the anti-slavery agitation, absorbed public interest. The currency and the tariff became party issues, and were argued thru upon a political rather than upon an economic basis. The anti-slavery agitation produced its group of moralists, but none of these disputes developed economists.

The English people were forced to conserve their natural resources. But it was literally true that, for Americans, to be saving of land and resources would be wasteful. We had an unbounded potential productivity in uncultivated lands, an untold supply of minerals and ores, millions of horse power in the form of unharnessed waterfalls, timber so plenteous that our people regarded trees as weeds, and innumerable other resources so abundant as to be termed free goods. At the same time, labor was so scarce and valuable that it could be economically employed only in those places where the returns would be largest. Not the conservation of natural resources, but the most effective utilization of labor, was the dictate of wisdom in this country.

There was a mal-adjustment in the productive capacity of England in which natural resources was the short factor, whereas over-population made labor the long factor. This naturally led to low wages and high land-rents. In America, there was a mal-adjustment of productive capacity quite different from that found in

England. Here labor was the short, and natural resources were the long factor. Naturally enough, land-rents were of little consequence, whereas wages were high and the labor problem was one of major importance.

These differences in environment will in part explain the reasons for the different theories of rent held in the two countries. But, in further explanation of the variety of opinions contrary to Ricardo, we must look into his own theory of rent. I shall present this theory in critical form in order that the reader may have the essential points of controversy in mind. To comprehend the reasons for disagreement with Ricardian rent will best prepare the way for a study of the early American economists, for chief among their tasks was to defame the doctrine which made Ricardo famous.

Ricardo approached the rent problem through a study of value. His view of the subject is familiarly expressed as "the labor-cost-of-production theory of value." He taught that the value of a good is proportional to the amount of labor employed in its production or to the wages paid for that labor. If your knife costs two days' labor whereas my pen costs only one, it should follow that your knife would exchange for two such pens as mine. Value : value :: labor cost : labor cost. If the relative values of articles are proportional to labor-costs or wage-outlays, it is a mere truism that no other costs, as rents or hires, can enter into value. If one accounts for the price of wheat by the labor-cost of producing it, one is forced to prove that other outlays as rents are, in reality, not costs at all. So much for the theory which teaches that value is proportional to labor-cost or to the wages paid for that labor. [2]

[2] Ricardo's critics have put certain embarrassing questions: (1) One finds a precious stone worth $500. Is its value determined by its labor-

True or false, this theory of value enabled its author so to classify productive agents as to make rent a surplus return above labor-cost. The entrepreneur is hard to convince that wages form his only cost of doing business. He must pay for materials and pay numerous hires, rents, and fees. He asks, If cost determines price, why include only wage-costs and omit others of equal importance? Questions of this nature were troublesome, and forced Ricardo to make the following classification of productive agents:

(a) Land—so defined as to include all natural agents.

(b) Capital—so defined as to include all artificial agents produced by labor.

(c) Labor—human effort, be it mental or physical.

According to the foregoing classification, capital consists of productive goods made by human labor. In other words, "capital is canned labor"—past labor having taken the form of present goods. Then, interest or the payment for capital is a remuneration for past labor. Both wages and interest are thus outlays for labor.

To this point, capital has been made to consist of productive goods—of tools, instruments, and machines created by labor and used to produce more wealth. Here again the Ricardian is in difficulty. The rent paid to the landlord is called a surplus gained without labor; yet, when he reinvests it in the form of capital, he is forced to define it as the product of labor.

cost? No, for it has no such cost. (2) A monopoly artificially raises the price of a good. How is labor-cost responsible for the rise? The answer is, in no sense. (3) Does the value of money depend upon its labor-cost? Ricardo himself answered in the negative. (4) Wine becomes better and sells for a higher price when allowed to age for a number of years. A sprout worth fifty cents grows through time into a tree worth a hundred dollars. What has labor-cost to do with the increase of prices caused by growth or improvement through time? Labor-cost advocates regard these as mere exceptions to the "true theory." (5) How account for the value of labor itself? Another exception. (6) And does labor-cost determine the value of land, minerals, and other natural products? Again, no.

Ricardo employed two meanings of capital: capital as tools, and capital as value. It is necessary to his argument to prove that the returns on capital are uniform, in order that no surplus may arise from it. To prove that the per cent of return is uniform for all capital, he is forced to abandon the idea of capital as tools and shift to the idea of capital as value. If capital is conceived as value, competition will operate to maintain uniformity of returns. It is well known, for example, that if ten per cent is returned in the shoe business and only five per cent in the hat business, capital will shift from the less to the more remunerative employment. Because capital tends toward a uniform competitive return, it earns no surplus. No surplus going to capital (canned labor), Ricardo tells us that all the interest on capital is a true labor-cost.

The foregoing classification enabled him to treat rent as a surplus that forms no part of the cost of production. The entrepreneur spends money for labor, for agents created by labor, and for natural agents. But Ricardo tells us that cost determines value, and that the only cost is labor; therefore, the money paid for the use of natural agents must be eliminated from cost. Call interest the wages of past labor, and wages the payment for present labor; but the payment for the use of natural agents can not be termed wages since labor did not create such agents. He defined rent as the payment for the use of land (natural agents). He believed rent to be no part of cost; thought that it was a surplus over and above cost. If it is not an element of cost, it can have no bearing on price. How did he proceed to demonstrate the proposition that rent is not a cost?

If the different bushels of a supply of wheat are of uniform grade, they will sell for a uniform price in the

market. Like bushels of wheat in a market at a given time will sell at the same price. But the cost of producing the different bushels is not the same. Some may be produced on superior soil and near the market; some may be grown on inferior soil and distant from the market; some are secured from the superior uses of land and others at or near the intensive margin. Costs vary, but the price is uniform. Which cost is it that determines the price? The greatest cost—that portion of the supply which is produced at the greatest cost—determines the price of every portion of the supply. But the greatest cost is at the intensive margin or upon the marginal land—the land barely worth cultivating. Such land, or land uses, is so inferior that no rent is paid for the use of it. Then if production at the greatest cost determines prices, and if this greatest cost takes place where no rent is paid, it must follow that rent does not enter into the cost that determines price. This thought was cogently expressed by Ricardo, "Corn is not high because a rent is paid, but a rent is paid because corn is high."

Ricardo's theory of value, which required capital to be defined as "stored up labor," has been on the defensive from the moment it was first penned. His theory of rent, his distinction between land and capital, and his theory of distribution based upon this artificial distinction, are the defense works of his labor-cost theory of value.

As above indicated, Ricardo reached the conclusion that "rent does not enter into price." This conclusion together with his concept of uniform profits (wages for past labor) made it possible for him to deduce the proposition that the only true cost and determinant of values is that of labor employed at the margin of cultivation where no rent is paid.

Should it be demonstrated that rent does enter into cost, Ricardo's theory of distribution must fall. This demonstration is made if it can be shown that only valuable land (or land uses) is cultivated; for valuable land always commands a rent and, therefore, rent would enter into cost.

Cultivation extends to, but not beyond the "no-rent margin." Let us examine this statement; for, if it is true, it follows that only valuable land is cultivated. What is this margin? It is, in pure theory, a boundary line separating the land fit (valuable) for cultivation from the unfit (valueless). It is comparable to the line separating time into past and future.

Beyond this land-margin, cultivation would occasion greater costs than income. Were the product of uses beyond the margin greater than the cost of harnessing them, they would, in consequence, yield a net return. They would be valuable, and, for this reason, command a rent. But this is contrary to the marginal concept. This thought is substantiated by two laws: proportionality and capitalization.

The concept of proportionality has been the subject-matter of numerous contributions during the last thirty years; it has now passed out of the theoretical stage, and has become an established economic law. Its familiarity to economists spreads the need of repeating it in full.

A single agent is non-productive, and is valueless unless there are other factors to combine with it. An axe cannot cut wood, neither can a man—it takes the two combined, for the mutual interaction of agents liberates each the productive power in the other. Arid land produces nothing, and is valueless unless water is in prospect. Turn a river into the barren area, and

the combination, land and water, becomes productive and valuable. Since neither factor alone could produce and because it requires mutual contact for each factor to liberate the productive capacity in the other, it follows that the productive agent is a composite in nature and valued as a single unit. Does land make the water valuable? or does water make the land valuable? Each liberates the productive capacity in the other, and the two in one are valued.

Consider a rich agricultural state like Minnesota with its many lakes and rivers. Is not water there, although utilized in production, a free good? I answer that water in the lakes or rivers is free because it exists in such abundance as to render the short factor, land, incapable of liberating its productive capacity. Suppose now it were possible for the owner of a bonanza farm separately to sell and remove the moisture from his farm. The water would not be free, but it would require the total value of the farm to buy it. If one thinks of the air as a separate thing, it is free; but, were it integrated with the chemical qualities of the soil, the farmer would not have it permanently removed for a price less than the value of the farm. To harness a free agent and make it an integrated part of a composite productive agent is to make it valuable. A farm is more than land; it is the combined productive qualities that grow a crop.

Thus we see that proportionality is a physical law having to do with so adjusting things that they, in obedience to natural laws, will give off the means of gratifying desires. Man makes the adjustments, however; and the motive by which he is directed is that of securing a valuable return. No effort is wasted by man to harness an agent that is without promise of a valuable return. The conclusion follows that, except for miscalculation

and poor judgment, all cultivated land yields a net return, is valuable, and, therefore, commands a rent.

The writer has in mind an investment of $100,000 made in the fruitless attempt to convert a seemingly bottomless swamp into productive soil. The venture failed and the money was lost because there was no productivity in the situation to exploit. A composite agent is valueless when one of the essential factors is unproductive. Suppose that this swamp had responded to good treatment, that the composite agent (the land, the capital expended and embodied in its improvement, together with the other essential factors) had produced an annual net yield of $10,000. This capitalized at five per cent would give a capital value of $200,000. This yield could not be subdivided and the different portions of it attributed to the different factors in the composite agent. Specific productivity is not a generally accepted theory. One can no more attribute the value of the product to one factor in the composite agent than he could attribute music to the piano exclusive of the pianist, or sound to the clapper exclusive of the bell, or walking to the right foot exclusive of the left. But why will a man farm except for a yield? And if yield there be, its value is reflected, without exclusion, to the factors which compose the farm, the integrated agent of production. The process of capitalization is such as to make all land under cultivation valuable, and, therefore, rent-bearing. But if only rent-bearing land is cultivated, rent must enter into cost, with the consequence that the labor-cost theory of value falls.

We shall see, later on, that almost all of the American economists had the view that rent enters into cost. With this thought in mind, naturally enough they could not see why a tax on rent could not be shifted. To

recognize rent as an element in the cost of production is to take the premise from under Ricardo's deduction of a non-shifting land-tax.

Throughout the following pages, we shall find other difficulties which our writers encountered in their criticism of Ricardo. Among these, it should be kept in mind that Ricardo's theory of rent was static, whereas American economists took a dynamic point of view. What is more, Ricardo approached the determination of price from the margin, whereas almost all American economists thought that the no-rent margin was determined by the price of the product. They reasoned that the margin is price-determined rather than price-determining.

Again Ricardo's well known formula makes differences in land a cause of rent; but the principle of capitalization enables us to argue that difference in fertility is not a cause, but only a measure of rent. Rent in the competitive market, as above shown, is paid for all land under cultivation. Moreover, rents come to equality in the sense of equal price for equal service. Paying rent is but buying the productive services of agents. A rent of $100 for the superior acre which yields 100 units of service, is equal per unit of service to the rent of $5 paid for the inferior acre which yields only 5 units of service. These rents are equal in the same sense that the price of 5c for one loaf is not higher than the price of $1 for twenty loaves. Competition renders equal land-uses equal in price. And the price paid for the uses of land is as much a cost to the entrepreneur as is the price paid for the services of labor. From the best to the poorest land, rent enters uniformly into cost.

Regarding capital as uniform, Ricardo limited the dif-

ferential concept to land. We shall find that not a few of the writers we shall study made a severe attack against him at this point. At a later date than we shall review, Francis A. Walker, though a defender of Ricardian rent, recognized differences among men, and made these the basis for his theory of differential profits. Recent authors—notably Hobson, Clark, Cannan, Fetter, and Davenport—see that the differential idea applies with equal force to the artificial agencies of production as it does to labor and land. [3]

Akin to his differential was Ricardo's treatment of the law of diminishing returns, which, despite its imperfections, was a real contribution. Turgot had narrowly conceived this law. [4] Cannan believes that Malthus did not make use of this law in the first and second editions of his essay on population. But, I ask, is not the very essence of the orthodox concept of diminishing returns contained in Malthus' arithmetical and geometrical ratios? The doctrine of the pressure of population on the means of subsistence, has no basis if it is not the disadvantage which attends the attempt to extort a greater and still greater crop from the soil. Ricardo himself does not give the law a better statement than is found in Sir Edward West's *Essay on the Application of Capital to Land* (1815). [5] But to connect this law with the problems of rent, profits, and wages, and to weave it into a general system of distribution was left for Ricardo. The recent extension of this law to other

[3] Walker, *Political Econ.*, Part IV, chap. IV. Also Hobson, *The Law of the Three Rents, Quar. Journ. Econ.*, V, 263-288, Apr., 1891; Clark, *Distribution as Determined by a Law of Rent, Quar. Journ. Econ.*, V, 289-318, Apr., 1891; Cannan, *The Origin of the Law of Diminishing Returns, Econ. Jour.*, 11, 53-69, 1892; Fetter, *The Passing of the Old Rent Concept, Quar. Journ. Econ.*, XV, 416-455, May, 1901; and Fetter, *The Relation Between Rent and Interest, Amer. Econ. Ass'n.*, 1904, third series, 176-198.

[4] Cannan, *Theory of Production and Distribution*, 147-148.

[5] West, *Essay on the Application of Capital to Land*, 9-27.

productive factors, though the method of reasoning and the definition of the law be modified, has furthered the work which Ricardo began. This law, to Ricardo, was a principle of resistance; and, to him, cost was the overcoming of resistance. This principle is related to value since, because of resistance, supply is limited.

Ricardo's thought was that land obeys the law of diminishing returns whereas other agents do not. This statement, it should be said, has been denied for the most part by later economists. Almost all economists now observe that, should any productive agent cease to obey the law of diminishing returns, it would lose the element of scarcity and become a free good.

It is true that, in the beginning of his work, Ricardo doubly emphasized the point that the law of diminishing returns is associated only with the original and indestructible qualities of the soil.[6] He reckoned as capital all the investments on the land such as hedges, fences, manure, and other improvements. But Ricardo himself was led to give up a classification so artificial as this. He abandoned the classification in these words: "As a part of this capital, when once expended in the improvement of a farm, is inseparably amalgamated with the land, and tends to increase its productive powers, the remuneration paid to the landlord for its use is strictly of the nature of rent, and is subject to all the laws of rent."[7]

Thus we see that Ricardo himself came to give a more extensive application to the law of rent than later writers have given him credit for.

The different points of view found throughout Ricardo's treatment have made his followers uncertain as

[6] Ricardo, *Principles*, 46.
[7] See foot-note, *Principles*, pages 246-247.

to what Ricardo meant by rent, and these critics have been at still greater variance relative to the conclusions deduced from his definition. [8]

His formal definition reads: "Rent is that portion of the produce of the earth, which is paid to the landlord for the use of the original and indestructible powers of the soil." [9] This definition is based upon the idea that rent is a contractual payment made by one person to another for the use of the land as such. Again he says, "For rent is always the difference between the produce obtained by the employment of two equal quantities of capital and labor." [10] In this definition, it is not certain whether rent is a contractual payment or whether it might not be the produce obtained in case the landlord tilled his own soil. Nor are we sure but that rent might be a remuneration for the use of capital and of labor.

The author employs many expressions which would lead us to believe that a rent is paid for capital; the following is illustrative: "The capital last employed pays no rent." [11]

Chapter II of his *Principles* is devoted to rent; and the reader cannot be mistaken in the fact that, throughout that chapter, Ricardo had commodity-rent rather than money-rent in mind. It is probable that the impoverished state of the people in England at the time

[8] Professor Sidgwick says, "The Ricardian theory of rent combines, in a somewhat confusing way, at least three distinct theories, resting on different kinds of evidence, and relating to different and not necessarily connected inquiries: we may distinguish them as (1) a historical theory as to the origin of rent, (2) a statistical theory of the economic forces tending to determine rent at the present time, and (3) a dynamical theory of the causes continually tending to increase rent, as wealth and population increase." *Principles of Political Economy*, 286. Here Professor Sidgwick seems to have mistaken Ricardo's description of rent for his theory of rent. Views like Professor Sidgwick's are continually appearing in the economic writings we are to review.

[9] Ricardo, *Principles*, 44. He should have said "uses above the margin." The powers of the soil are not indestructible.

[10] *Ib.*, 48. [11] *Ib.*, 49.

when Ricardo prepared this chapter is responsible for the emphasis which he placed upon commodity-returns and corn-rent. Later on, however, when he was preparing his Chapter XXIV (*The Doctrine of Adam Smith Concerning the Rent of Land*), a different emphasis was given to the subject. He was there concerned largely with the distribution of wealth. Desiring to prove that the interest of the landlord is opposite to the interest of the rest of the community, he had to keep uppermost in thought the idea of contract rent payable in terms of money. A careful reading of this chapter, however, shows much of shifting back and forth between the ideas of money-rent and corn-rent.

When he reaches Chapter XXXII (*Mr. Malthus' Opinions on Rent*), we find Ricardo championing the cause of the people against the forceful arguments of Malthus, the chief defender of the landlord class. This chapter contains a reply to Malthus' pamphlet of 1815 on *The Nature and Progress of Rent.* Malthus looked upon rent as an addition to national wealth. Ricardo could overcome this point of view only by treating rent as a transfer of value from one person to another. And so he here shapes his definition to fit the point he would make. [12]

Chapter II of his *Political Economy* contains his analysis of rent; Chapter XXIV on Adam Smith, is an indictment of the landlord class showing their interests to be opposed to those of the rest of the community; and the chapter on Malthus, Chapter XXXII, is an argument to overcome the champion of the landlord class. In the chapter on Rent, we find Ricardo the scientist; in the chapter on Malthus, we find Ricardo the debater.

[12] Ricardo, *Principles*, 393. See *Letters of D. Ricardo to H. Tower*, 113-114.

It was necessary for him to shift from commodity-returns to money-rent in order to make his case against the landlord class.

The students of Ricardo furthermore have had difficulty in determining whether rent is to be regarded as a monopoly-return or a competitive return. In the second chapter of his work, it is clear that rent is an outgrowth of competitive conditions. But, throughout the latter part of his study, he states specifically more than once that rent is to be regarded as a monopoly-return. [13]

Ricardo's definition is at one time to be interpreted from the individual's point of view, at another time from the national point of view; at one time it refers to corn-rent, and another time to money-rent; at one time it means pure land-rent, at another time mixed capital and land-rent; at one time it signifies monopoly-returns, and at another time competitive returns. It supplies a basis for such a variety of arguments and conflicting conclusions that we cannot wonder why hardly any two writers, whether they be disciples or opponents, can agree on the Ricardian theory of rent. One disciple of Ricardo claims, in harmony with some of Ricardo's teachings on rent, that the progress of one class means the poverty of another; [14] a critic, [15] who even styles himself the "Ricardian of the Ricardians," with equal fidelity to Ricardo denies this doctrine while basing his arguments also upon the Ricardian theory of rent. The truth is that Ricardo had no clear conception of rent, and that he shifted from one concept to another as it became convenient in the different parts of his study.

Does rent add to the wealth of a nation? Certainly

[13] Ricardo, *Principles*, 234, 235, 268.
[14] George, *Progress and Poverty*.
[15] Walker, *Land and its Rent*.

from the above variations in view-point, the author gives us ground for drawing a choice of conclusions. Note particularly the following remarks: "Rent then is a creation of value, but not a creation of wealth; it adds nothing to the resources of a country, it does not enable it to maintain fleets and armies; for the country would have a greater disposable fund if its land were of a better quality, and it could employ the same capital without generating a rent." [16] Certainly the conclusion from this would be that rent is a mere transfer of value which adds nothing to national wealth.

If we turn from his attack upon the landlords to his comment upon the niggardliness of nature, his thought is upon the social distress and upon returns of product rather than of value. Here he remarks, "Whether the proprietor of the land, or any other person, cultivate No. 1, these ten quarters would equally constitute rent."[17] Since rent is composed of products, and products are wealth, it follows that rent adds to national wealth. This distinction is very important in that the question of tariff in both England and America was largely influenced by it.

The different opinions held by Ricardo and Malthus as to whether or not rent adds to the national wealth made Malthus a protectionist and Ricardo an advocate of the freedom of international trade.

American economists have placed much emphasis upon the relationship between rent and the tariff; indeed, prior to 1880, American economics was little more than a by-product of considerations on the tariff. On the whole, protectionists have contested the Ricardian rent-doctrine, while free traders have accepted it. Profits was Ricardo's starting point in his argument against

[16] Ricardo, *Principles*, 394. [17] *Ib.*, 48.

tariff, and his one rate of profits was determined principally by agricultural capital which usually found the most unproductive investment. Restrict foreign corn, and the growth of population will force the cultivation of land at lower margins. The consequent high prices, he thinks, enable the landlord class to reap the benefits of high rents at the expense of wages and profits. It has been said that, "The Ricardian theory of rent was admirably suited and was meant for the practical purpose of attacking the Corn Laws and abolishing the protective duty on the importation of corn." [18] Professor Cannan, among others, is inclined to this view.

According to Ricardo's static economics, rent is largely a monopoly-return. His variety of definitions of rent may be classified as surplus value, surplus produce, and contract-rent. Ricardo was primarily interested in profits; according to him, rent and profits move in opposite directions. Profits and the land-margin decline together; rents and prices mount higher because of declining profits and land-margins. The importation of corn would maintain higher land-margins and higher profits, but lower prices and lower rents. This theory seemed to prove that the interests of capitalists, manufacturers, and city dwellers were contrary to the interests of the landlords. Non-agricultural classes would profit by a removal of the tariff; landlords would suffer by a removal of the tariff. Here Ricardo seems to be in a dilemma; restrictions on corn will be removed or they will not be removed; if they are removed the landlord class will suffer, if they are not removed other classes will suffer. In any case, a large portion of the population must lose.

It took two shifts in thought for Ricardo to get out

[18] Devas, *Political Economy*, 286.

of this perplexity. First, he shifted from the welfare of a class to the welfare of the nation. Second, he shifted his definition from commodity-rent to money-rent. By reason of this shift, he could make his case against the landlord class and substantiate his argument for a removal of the tariff. Of the items—money-income to the landlord, money-outgo of the farmer, and produce from the land—the first two mutually cancel, and leave the third, produce, as the real contribution to the sum total of income.

CHAPTER II

THE EARLY NATIONAL ECONOMISTS—RAYMOND, EVERETT, AND PHILLIPS

THE purpose of the preceding chapter was to prepare the way for a study of the early American economists. This chapter will begin with a study of Daniel Raymond (1786-1849) because he was the first American to write a book on political economy.[1] He was born and educated in Connecticut. After being graduated from the Tapping Reeve School of Law at Litchfield, Connecticut, he moved to the city of Baltimore where he began the practice of the law in the year 1814. Throughout his career, Raymond was a strong opponent of slavery, an able nationalist, a scientific protectionist, and, contrary to the then prevailing American ideas, he opposed *"laissez faire"* in the broad sense of that term. H. J. Furber says that Raymond had the dislike for England which was so common in this country at that time.[2] Cossa goes so far as to claim that Raymond's works were partly inspired by his animosity against England. But this is a mere statement devoid of proof; for, indeed, there is nothing in Raymond's writings to warrant it.

[1] *Thoughts on Political Economy.* In two parts. Baltimore, 1820. The second edition was titled *The Elements of Political Economy.* In two parts. Baltimore, 1823. He put forth a third edition in 1836, and a fourth edition in 1840. The work received much unfavorable criticism: cf. Dr. C. F. Gray, *North American Review,* April 1821; *The Richmond Inquirer,* Richmond, Va., in the following issues of 1825, July 1, August 26, 30, September 6, 9, October 13, and December 6. In these articles, W. G. Giles is most unfair, inaccurate in quotation, and abusive. He tries to make Raymond out a fanatic. He would convey the impression that the book is partisan. Expressions like "Messrs. Daniel Raymond, John Quincy Adams, and Henry Clay as an Affiliated Triumvirate in the elements of Political Economy," are characteristic.

At the time Raymond wrote his book (1820), several European texts were in use on this side of the Atlantic. No particular interest was taken in the fundamental laws of political economy; yet these works were extensively read for their bearing on the paramount political issue of the time—the tariff problem. Both political and industrial conditions forced this problem to the fore.

Raymond's interest in the tariff determined the nature of his book, which was a thoughtful presentation of the subtler principles of protective duties in opposition to the economic theories developed in England. He taught that national productive capacity results from the harmonious development of agriculture and manufacture. This proposition and its development was Raymond's contribution. His concept of "capacity," together with his definition and development of the idea, differed materially from that of James Steuart and of Lord Lauderdale. We are spared the need of controverting M. E. Hirst's claim to the contrary.[3] He gave

I cannot agree with the opinion of A. L. Perry that Raymond is a follower of Adam Smith (*Political Economy,* 81). C. P. Neill's "Daniel Raymond" is the only reliable work on Raymond. Mr. Neill's study is confined largely to Raymond's main thesis. He gives no discussion on rent, which was only incidentally considered by Raymond. See Neill's Chap. II. "Daniel Raymond and His Work." In Chapter IV, Mr. Neill quotes in parallel columns from Raymond's book and from F. List's works which appeared several years later. It seems quite evident that List was indebted to Raymond. This throws some light on the erroneous contention that H. C. Carey was indebted to List on the question of protection. Both Carey and List were indebted to the same American sources on this question. Raymond's work had a few enthusiastic friends; *Niles' Register,* December 16, 1820; *Blackwood's Magazine,* XVII, 200. John Adams and Mathew Carey waxed enthusiastic over the work (Neill's chapter II). General characteristics of Raymond's work were: as a national economy, political and economic entities were considered coextensive; individualistic philosophy was opposed; legal and moral considerations overshadowed economic principes. His was a *political* economy. His main thesis was national wealth as capacity for production in opposition to individual wealth as the possession of commodities. The purpose of his work was "to break loose from the fetters of foreign authority; from foreign theories and systems of political economy, which from the dissimilarity in the nature of the governments, renders them altogether unsuited to our country." (*Political Economy,* first ed., pref., v-vi.)

[2] Furber, *Geschichte der Oekonomischen Theorien in Amerika,* 58.

[3] Hirst, *The Life of Friedrich List,* 112.

little attention to a theory of distribution, for his primary interest was in the development of an economics of prosperity which looked toward the development of our national productive capacity. Unbounded resources were ours, and he viewed protection as the agency for the development of manufactures.

Our people had too recently won their independence from the exploitation of the English government for an idea of strong centralization and governmental interference, such as he advocated, to meet with general approval. His condemnation of slavery was not short of insulting to a large section of the country. His work had few friends and a small sale.

Raymond, as above indicated, recognized the nation as an organic unit. He objected to Adam Smith's individualistic economy, and insisted that the interests of individuals or classes were often opposed to the national interest. In his thought, it is capacity for acquiring the necessities and conveniences of life, and not existing commodities, which constitute the real wealth of a nation.[4] The province of political economy is not, he thinks, to study how individual classes may secure or augment wealth and value.[5] The field of political economy is, according to him, confined to a study of how the greatest productivity of a nation may be secured through legislation.[6] Naturally, then, this writer gave

[4] Raymond, *Political Economy*, 4th ed., 81. Raymond's ideas of national restriction struck a sympathetic chord in Mathew Carey, which is evidenced by the fact that he wanted to endow a chair of political economy in the University of Maryland on condition that Raymond be allowed to fill it:

"Philadelphia, Jan. 12, 1822. Know all men by these presents, that I do hereby bind myself to pay the University of Maryland, the sum of 500 dollars, as one year's salary for a Professor of Political Economy, and also to continue the subscription, unless I shall give six months' previous notice of my determination to discontinue the same. (signed) Mathew Carey." *Biographical Sketches,* 93-94. The very interesting correspondence between Raymond and Carey regarding the professorship in question will be found in the *Biographical Sketches,* 94-96.

[5] *Ib.,* 84. [6] *Ib.,* 116.

little attention to the laws which govern the distribution of income. There were four editions of his work; the first and fourth editions gave no discussion of rent, wages, profits, and interest. Despite this he made a bold stand against the Maltho-Ricardian doctrine.

Raymond's positive views were briefly expressed on the population-rent problem. He said, "Malthus' theory of population is certainly ingenious and plausible, although it is calculated to leave very erroneous impressions on the mind of the reader, in consequence of his not having treated the subject in conjunction with others, with which it is necessarily connected." [7] Raymond thought that pride and the innate feeling of independence make untrue Malthus' claim that almshouses and public aid will cause an increase of population. [8] He claimed that not over-population but a faulty distribution was the cause of poverty in England:

> When the tendency of a system of laws is to throw all the property into the hands of a few, the inevitable consequence, in a state of refinement in arts and civilization, will be to reduce the remaining portion of the nation to such a state of poverty and dependence as will subject them to all the horrors of famine, upon every fluctuation in the demand for their labor, however abundant the necessaries of life may be in the country, and unless there are countervailing laws, which shall compel such a distribution of food as will prevent starvation. It matters not how abundant food may be, if it all belongs to a small portion of the nation, and the rest of the nation has nothing to buy it with; a large portion will be left to starve, unless some provision is made by law for the distribution of it among the poor. Private charity is not adequate to prevent such a catastrophe. [9]

This artificial or legal expression is characteristic of Raymond. It should be remembered that he was not a professional economist but a professional lawyer. Arguments legal and theological in nature so pervaded his

[7] *Ib.*, 2nd ed., II, 67. [8] *Ib.*, 80.
[9] Raymond, *Political Economy*, 2nd ed., II, 74-75.

reasoning that economic laws were often disregarded even in questions which were primarily of an economic nature. This observation holds particularly in his treatment of population. He teaches that God would not establish laws that would lead an increasing population to starvation.

He thought that Malthusianism owed its great popularity to the rich. "It is," said he, "very convenient and very palatable for those who have all the property, to preach up the inutility of making provision for those who have none; and, with them, a theory of population, or a system of Political Economy, which establishes such a doctrine, would be likely to be very popular." [10] Jarrold had previously given a similar discussion on this point. [11] Our author's radical suggestion for the elimination of poverty was to have all the property in the Kingdom, at least once in every generation, divided proportionately among the people. [12]

The threefold division of productive factors into land, labor, and capital, Raymond disregarded. "That portion," he said, "which Adam Smith and Malthus call profits, is made up in part of rent, and in part of wages. What they call the profits of capital, is either rent or interest, and to avoid a multiplicity of distinctions, it had better be called rent than interest, if it be necessary to distinguish it from wages. But as such minute distinctions are wholly unnecessary and useless, the better way is to divide the product of the land and labor, between the owner of the land and the cultivator, and call one part rent, and the other wages." [13]

He treats the earth as the "source of all wealth," and

[10] *Ib.*, 72.
[11] Jarrold, *Dissertation on Man*, 314-362.
[12] Raymond, *Political Economy*, 2nd ed., II, 82.
[13] *Ib.*, I, 202-203.

labor as the "cause of all wealth." [14] He amalgamates machinery with the productive factor, man. [15] These are basic principles with him, and make possible the division of all incomes into wages and rent.

A theory of prosperity, as was Raymond's, is necessarily dynamic rather than static. Were desires reckoned as static, it would follow that the development of machinery would greatly diminish the necessity for human exertion. But, said Raymond, "The wants of man are indefinite and unlimited, and as fast as he contrives to supply one want with a less quantity of labor, another equally pressing want springs up to supply its place, and impose new necessity for labor." [16]

The growth of desires for a greater variety and a superior quality of goods stimulates the development of productive capacity to supply these desires. Larger productive capacity enhances the demand for and the earnings of labor, thereby making necessary a larger population from which the supply of labor may be increased.

He taught that wages were governed by the law of supply and demand, but that, in a developing society, the demand for labor exceeds the supply, so that wages gradually increase. Treating labor as the cause of all wealth, and minimizing the principle of diminishing returns, he conceived a dynamical increase in the productive power of labor due to the multiplication of numbers. Large numbers supply all the advantages of nearby markets and a more perfect division of labor. While productive capacity is being augmented through an increase of numbers, the demand for commodities is growing for a greater variety and a superior quality

[14] *Ib.*, **91, 92.** [15] *Ib.*, 98.
[16] *Ib.*, II, 109.

of goods. His concept of the dynamical increase of demands is such as to keep demand ever in advance of the supply. The conclusion following this argument is, that wages are augmented because of an increase in population. We shall now see that the difference between Raymond and Ricardo on rent is not less striking than were their unlike views on wages.

A national economist would hardly be expected to accept the Ricardian theory of rent, which serves an individualistic economics so well, and which formed the basis for the then prevailing arguments for the freedom of trade. Raymond defined rent as "that portion of the product of labor or an equivalent, which the proprietor of the land is entitled to, for the use of his land." [17] He makes rent a contract payment for the use of land. Elsewhere he strictly assimilates rent to prices in general. "Some writers," said he, "and especially Mr. Malthus, have taken great pains to establish a distinction in principle, between rent paid for the use of land, and the price paid for the use of commodities or personal property, and the attempt to establish such a distinction, where in fact no such distinction exists, except in name, has led them into some very singular errors." [18]

Since the distinction between the price paid for usance in general and rent is only nominal, there can be no particular law of rent other than that which regulates the prices of goods. Now that a theory of rent is a theory of price, the real inquiry becomes a question of price determination.

Very unlike a marginal cost theory was Raymond's view: "Both the rent and price of land are regulated and governed by the same laws which regulate and gov-

[17] *Ib.*, I, 192. [18] *Ib.*, I, 184.

ern the price of corn and everything else. The price of everything depends upon the proportion which exists between the supply and the demand." [19]

Similarly, he regards the distinctions between rent and interest as only nominal. "The consideration," he said, "paid for the use of land is called rent; that paid for the use of money is called interest." [20] He speaks of land as capital, and identifies land and capital as composing a common capital fund. Both are spoken of in the same sense as instruments in man's hands for productive purposes. [21] He speaks of both rent and interest as a per cent. [22] Both are governed by the same law —that of supply and demand. [23] In a rude government, he says, some risk enters into the loaning of capital other than land, [24] but "independent of the risk of losing the principal, the interest of money ought to be at precisely the same rate as the rent of land." [25]

Now that land is capital, and that the same laws must regulate returns to all capital, consistency will not permit a law of diminishing returns to apply to land while a law of increasing returns is applicable to manufactures. For a serious consideration of diminishing returns, however, Raymond was on the wrong side of the Atlantic. Why would a lawyer be concerned over diminishing returns when no more than a gap had been made in the waiting forests of a new world? Not to overcome the niggardliness of nature but to augment the population was his problem. "To what extent," said he, "the fruits of the earth may be augmented, no human intelligence can tell. For aught that we can perceive, the earth is

[19] *Ib.*, 183.
[20] *Ib.*, 254.
[21] *Ib.*, 104-105.
[22] *Ib.*, 259.
[23] *Ib.*, Chap. XII.
[24] *Ib.*, I, 255.
[25] *Ib.*

capable of being made to yield an indefinite and almost unlimited quantity of food. We can no more fix limits to the powers of the earth to produce the necessaries of life than we can fix limits to the powers of life itself, or to the artificial wants of men. . . . The fruits of the earth are multiplied almost in proportion to the labor bestowed upon it." [26]

But this extravagant optimism is modified. "I am far from supposing," said he, "that the earth is capable of being made to increase its fruits with the same rapidity, that the unrestrained powers of procreation are capable of multiplying the human species." [27] These powers, unrestrained, would so increase the population that "universal starvation would sweep them off." [28] But he thinks that the laws of nature will so regulate population that man need not interpose his agency. [29] Just what these laws are or how they work, he fails to inform us, yet he admonishes us to obey them.

The effect of machinery is to increase corn-rent, but not money-rent. Agricultural improvements may throw some labor out of employment, but this labor would find employment in the extension of manufactures. [30]

Raymond's want of method, his ungrammatical and illogical statements, together with occasional contradictions, leave no definite conclusion to be drawn. Though he assimilates land and capital, the trend of his discussion seems to recognize dynamical diminishing returns in agriculture, which, however, are more than counterbalanced by increasing returns to machinery. This, together with the idea that growing prosperity accompanies the increase of population, and that divine

[26] *Ib.*, II, 111.
[27] *Ib.*, 112.
[28] *Ib.*, II, 113.
[29] *Ib.*
[30] *Ib.*, Chap. VIII.

laws will most wisely regulate numbers, certainly leads to most optimistic predictions regarding the future well-being of man. On the whole, we find that Raymond was diametrically opposed to the gloomy Maltho-Ricardian theory.

Quite in harmony with this attitude were the ideas of Everett. Like Raymond, Alexander H. Everett (1790-1847) was a lawyer. His book *New Ideas on Population* appeared on the same date as Raymond's second edition. Both he and Raymond were national economists of the same political faith. Their scientific writings, it is feared, may have been colored by the ardent zeal they held in common for the doctrines of John Quincy Adams. Not less pronounced than their deference to Adams was their common dislike for the pessimistic theories of the Maltho-Ricardian school.

This writer was a brother of Edward Everett; he studied law in the office of John Quincy Adams and served on many important commissions. As he was an orator and statesman of ability, as well as a member of his state senate and a minister plenipotentiary at the court of Spain, his works were influential and found wide circulation.

Everett did more on the population aspect of the problem than did any other of the early American writers. In addition to the work just mentioned, he carried on a correspondence with George Tucker respecting the population problem, and made many speeches on the subject. He conferred personally with Malthus on this question. [31]

[31] Everett, *New Ideas on Population,* 1st ed., pref. Everett was graduated with highest honors at Harvard in 1806; he was appointed United States *chargé d'affaires* at the Hague in 1818. After serving as Minister to Madrid, he returned in 1825 to America and became editor and pro-

His work on population begins with objections to the ideas, (1) that political institutions are the source of all evil, and (2) that they have no tendency to improve the condition of mankind, and are entirely indifferent. He said, "The former proposition is directly maintained by Godwin, and the latter is implied in the theory of Malthus." [32]

Like Raymond, he thinks that Malthus assumes too much from the single example of the rapid increase of population in America. "To assume the highest known rate of increase . . . as the standard of the ordinary progress of population, would be like assuming the strength and intelligence of the most powerful and wisest man . . . as the standard of the ordinary physical and intellectual endowments of the race. It . . . would be unsafe to draw a general conclusion from a single instance; and that the single instance least suitable for this purpose would be precisely those of the highest and of the lowest known rates of increase; the former of which has been selected by Mr. Malthus." [33] He says we must know the power of population to increase, the checks and the rates of increase under these checks, as well as the rate at which food can

prietor of *The North American Review*. He was a member of the Massachusetts legislature, a confidential agent of the government to Cuba, 1840. He was appointed to a diplomatic post at Peking, 1845. He was a frequent contributor to *The Monthly Anthology*, 1803-1811. His first important book was *Europe, Powers, with Conjectures on the Future Prospect*, 1822. This was translated into German, French, and Spanish. Other books were: *New Ideas on Population* 1823; *Critical and Miscellaneous Essays* 1845-1847; *Life of Joseph Warren* and *Life of Patrick Henry* in Sparks' *American Biographies*. He was a frequent contributor to *The North American Review;* he also contributed economic essays to *The Boston Quarterly*. (*Nat. Encyc. of Amer. Biog.*, IX, 256. See also *New Inter. Encyc.*, VII, 312.)

The North American Review was warm in its praise of the *New Ideas* (*North Amer. Rev.*, Oct., 1823; Jan., 1827). After most elaborately praising the *New Ideas*, a reviewer in *The North American Review* said, "Mr. Everett's arguments are triumphant, and amount to a complete demonstration." (XXIV, 219).

[32] Everett, *New Ideas on Population*, 2nd ed., 120.

[33] *Ib.*, 53-54.

be obtained, before we can compare the rates of increase between population and food. [34]

Everett urges another criticism against Malthus. "He views," said Everett, "every individual added to society as an additional consumer, without appearing to reflect, that he is also at the same time an additional laborer." [35] This seems hardly just to Malthus, for he knew as well as did Everett that more individuals means more laborers. This criticism implies a misunderstanding on the part of Everett as to the real problem confronting Malthus, namely, that of historical diminishing returns. Be this as it may, it was in criticism of this view that Everett advanced the "new idea" which furnished the main thesis and the title of his book. Briefly, the "new idea" teaches that the increase of population is the cause of abundance and not of scarcity. [36]

Natural advantages and skill determine the productiveness of labor. [37] He assumed natural advantages to be invariable in order that he might determine what effect an increase of population would have upon skill. He fails to consider diminishing returns, and argues to the effect that the greater the density the more perfect becomes the division of labor. Like Adam Smith and Raymond, he thinks that the division of labor stimulates the invention of new machinery, [38] and develops all the parts of industry. The progressive rate of production is considerably more rapid than that of the increase of population. During the seventeenth century, the population of Great Britain doubled, claimed Everett, while its productive power multiplied a thousand times. Malthus' ratios run, for food, 1, 2, 3, 4, 5, 6, etc., and

[34] *Ib.*, 54.
[35] *Ib.*, 21.
[36] *Ib.*, Chap. II.
[37] *Ib.*, 24.
[38] *Ib.*, 27. Adam Smith, *Wealth of Nations*, I, 11.

for population, 2, 4, 8, 16, 32, 64, etc.; while Everett's ratios run, for food, 1, 10, 100, 1000, 10,000, 100,000, etc., and for population, 2, 4, 8, 16, 32, 64, etc. He called this estimate *moderate,* and adds that it "is still much higher than it need be" in order to refute the system of Malthus. [39]

Despite these statements, so absurdly large, he elsewhere admits a principle of resistance but regards it of no importance and as belonging to an abstract theory of perfectibility. [40] He makes much of the point that population is not supported on the same soil that it occupies, and that Malthus does imply such an assumption. He considers the time far distant, if indeed it shall ever come, when population will press upon the means of subsistence, whereas Malthus considered that such pressure had long existed. [41]

What he terms the "new idea" was, in reality, the "old idea," [42] and it was the only idea in the book worthy of consideration. None of his economic writings can claim more scientific merit than the book just reviewed. Further space will not be given them.

Although not illuminating in one sense, there is a sense in which the works just reviewed are most instructive. They express the American idea of that time. They exemplify a felt disproportionality, a pressing need for a larger population. No one expects to find in the America of 1823 a favorable reception of Ricardian rent, embodying, as it does, the Malthusian theory of population. Popular writers like Raymond and Everett, who were not economists primarily, are not supposed to accept so pessimistic a doctrine. Their profession steeped

[39] Everett, *New Ideas on Population,* 2nd ed., 26, 27.
[40] *Ib.*, 44.
[41] Malthus, *Essay on Population,* 2nd ed., 353, 354.
[42] Cannan, *Theories of Production and Distribution,* 124-130; Gide and Rist, *Histoire des Doctrines Economiques,* 140.

them in the "American idea," and their national environment was boundless opportunity. They could not entertain an opinion based upon the niggardliness of nature.

The third of the early national economists in point of time, and the ablest of the three, was Willard Phillips (1784-1873). This author held views so similar to those of Raymond and Everett that they should be considered in the same chapter. The three were reared and educated contemporaneously in New England. Around them, a new and really national life was being developed; American isolation and the struggle for industrial independence were forces which caused a pronounced movement for protection; and a comprehensive policy was being formulated for the development of the resources of this country. Particularly true were these conditions in the twenties, when appeared the works of the economists under review.

Phillips, like Raymond and Everett, was a lawyer by profession, a national economist, and an opponent of Malthusianism. He was a business man who for thirty years was president of a life insurance company; a lawyer who acted in the capacity of judge for eight years; an editor who was connected with four of the leading journals of the time, and also with Pickering's *Reports;* and an author who wrote on questions of law and political economy. [43]

[43] *The Twentieth Century Biographical Dictionary of Noted Americans*, VIII, (no paging). Willard Phillips, editor and author, born Bridgewater, Mass., Dec. 19, 1784, died Cambridge, Mass., Sept. 9, 1873. Harvard A.B., 1810; A.M., 1813; tutor there 1811-1815. Practised law in Boston 1818-1845. Representative in the General Court, 1825-1826; judge of probate of Suffolk County, 1839-1847. President of New England Mutual Life Insurance Company, 1843 to his death in 1873. LL.D. Harvard, 1853. Fellow in the American Academy of Arts and Sciences. Connected editorially with the *General Repository and Review; North American Review; American Jurist;* first and second American editions of Collyer's *Law Partnership* (1834-1839) and the first eight volumes of Pickering's *Reports.* He was author of *Treatise on the Law of Insurance* (1823); *Manual of Political Economy* (1828); *The Law*

Phillips' *Manual of Political Economy* is, in keeping with its author, a practical rather than a theoretical work. His reasoning is accompanied throughout with copious historical illustrations and statistical data, evincing a fund of information regarding our resources. "The literary execution of the work is highly creditable to the author. The style is correct, perspicuous, and, as far as the nature of the subject admits, elegant." [44]

"The object of this treatise," said Phillips, "is to present . . . a concise, practical view of the most important principles of this science, with an adaptation, more particularly, to the circumstances and conditions of the United States." [45] He admits that the economic principles of one nation may not be wholly different from those of another, but they may "have a practical application in some places and be totally inapplicable elsewhere." [46]

In harmony with Lord Lauderdale and Daniel Raymond, he takes the national view, [47] and regards wealth as capacity for production. He does not limit himself to things which are bought, sold, and exchanged, and are subject to property. National productive capacity,

of Patents for Inventions, including the Remedies and Legal Proceedings in Relation to Patent Rights (1837); *The Inventor's Guide* (1837); *Protection and Free Trade* (1850).

Through correspondence I am informed that, "Mr. Phillips had a strong sympathy for the common man. He was always willing and anxious to help the needy. He was very practical and sympathetic in his writings, in his daily life, and in the great business of life insurance to which he gave so large a share of his time and study."

See also *Appleton's Encyclopedia of American Biography*, IV, 763. He was editor with Jared Sparks (1817-1818) and frequent contributor to *The North American Review*.

[44] *North American Review*, XXXII, 216.

[45] Phillips, *Manual of Political Economy*, Pref., v.

[46] *Ib.*, vi.

[47] Professor D. R. Dewey says, "The *Manual* is an exposition of English and academic theory then current. Further experience, however, changed the author's convictions and the later work, a systematic defense of protection in the form of seventy propositions, is of value as illustrating the intellectual exposition of protectionism at this time in the United States." Palgrave, *Dict. of Pol. Econ.*, III, 103. This statement is in error.

he thinks, must consider the free as well as the slave, a salubrious atmosphere, and a navigable river without tolls as well as a canal with tolls. He agrees with Lord Lauderdale that a great scarcity of water, which occasions that necessity to become private property and subject to purchase and sale, makes some individuals richer, and the community poorer. Phillips would have argued that, had Providence constructed a broad flowing and navigable river from Colon to Panama, it would have been an object of wealth as truly as is a man-made canal costing three hundred and fifty millions. "We perceive," said he, "from these instances, that the capacity and facilities for production are not tested and measured by the mere subject of property or of things bought and sold in a community. It would be unnecessary to notice this distinction, had not the industrial means and faculties of a nation been denominated *national wealth,* and we must therefore guard ourselves against accepting the word *wealth* in its ordinary meaning when it is so applied." [48]

His third chapter contains a forceful argument against the labor-cost-of-production theory of value. He limits value to things, material or immaterial, which are subject to purchase and sale. His clear arguments and numerous illustrations are all to the effect that value is subjective and individualistic, and may or may not correspond with cost. The following words are in harmony with the whole of his discussion of value: "Some instruments are merely useful, as the implements of husbandry and the tools of mechanical trades; others again are in some hands the implements of industry, in others, those of amusement. The amateur uses his violin for recreation, the professor for a livelihood. The

[48] Phillips, *Manual of Political Economy,* 12-14. Quotation, 13-14.

hunter labors, but the sportsman amuses himself in the chase. The desire to obtain any particular thing gives it its value, and the motives of such desire are as various and numerous as the appetities, tastes, passions, wants, and caprices of mankind. As value is created by this desire, so it is limited by its strength and intensity." [49]

His is rather an instrumental concept of capital, although he speaks of land as capital, [50] and at times of rent as a per cent of the value of property. [51] But he shifts from the technological to the value concept of capital and reasons correctly thus: "The value of all capital is estimated by the income derived from it." [52]

Turning now to the tariff, we are met with a politico-economic question, which, from the birth of economics, has been impregnated with prejudice. The scientist and the man are inseparable always, but on this question human frailty predominates, and the will, rather than the reason, rules. But much to the credit of our author, his long, interesting, and bountifully illustrated chapter (VIII) on commerce is a defense for the tariff evincing much talent and little bias. *The North American Review* said, "His argument on the subject is powerful, lucid, and as we think, conclusive." [53]

Enough has been said to show that the economics of Phillips was upon a different basis from that of the Maltho-Ricardian school. He considered Malthus' work on population to be of little importance. He spoke of it as "the now hackneyed doctrine," [54] and said that, "the whole argument has been confuted in a less known work by Mr. S. Gray." [55]

[49] *Ib.*, 33. [50] *Ib.*, 97.
[51] *Ib.*, 98. [52] *Ib.*, 97.
[53] *North American Review*, XXXII, 229.
[54] Phillips, *Manual of Political Economy*, 75.
[55] *Ib.*, 139.

The ideas of Mr. Gray to which Phillips pins his faith are: (a) The means of subsistence increase faster than does population, as evinced by the facts of uncultivated or ill-cultivated lands, and the emigration from the country to the city because of a want of employment in the production of more food. He argued also that prices had been reasonable. (b) Then, in harmony with Everett's *New Ideas,* Gray argued that "the increase of population instead of having a tendency to diminish employment and produce poverty, is the grand source of all permanent increase in employment and wealth." [56] Phillips accepted this argument and said, "not only an intelligent and industrious, but also a dense population is necessary to bring out all the natural advantages for production." [57] He would not "hail famine as a deliverer, and celebrate a pestilence as a subject of thanksgiving." [58]

Very unlike the English doctrines of that time were the arguments of Phillips. Very little reason is there for Professor Dunbar's implication that Phillips was a disciple of Adam Smith, and for his borrowed statement that "he [Phillips] sought to take up the subject where Adam Smith had left it." [59]

[56] *Pamphleteer,* XVII, 415. In his *Happiness of the State,* Mr. Gray writes a chapter (Bk. VI, Chap. 3) to demonstrate that population regulates subsistence rather than the reverse. He claimed that America's great production was due to a rapidly increasing population, 439. He said, "From this analysis of circumstances, the fact in nature is clearly established, that population regulates subsistence, not subsistence population; that the progress of subsistence, with the exception of occasional irregularities, is caused by the progress of population and by the skill and industry of that population: In other words that it is the ratio of the increase of population, rapid or slow, which regulates the ratio of the increase of subsistence. . . . Population will force subsistence on at a rate, at least equal, but generally higher than its own." 445-446.

[57] Phillips, *Manual of Political Economy,* 106.

[58] *Ib.*, 140.

[59] Dunbar, *Essays,* II. I see no evidence that Professor Dunbar had read the work he criticised. He said: "Willard Phillips produced a treatise (1828) in which, treating the whole structure of Malthus and Ricardo as unsound, he sought to take up the subject where Adam Smith had left it. He treated it with an abundant knowledge of industrial and commercial facts, and with a mind well trained for speculative

Phillips defined rent to be "the net proceeds of the annual products over and above the expenses of production." [60] He regards rent in the sense of surplus produce rather than as a contract payment by the farmer to the landlord. [61]

After a deriding criticism of Ricardo's rent, he said, of the no-rent concept, "It might be readily tested, and confuted too, by merely going into the country and learning that the *land last enclosed for wheat yielded rent.* It proves that, after rents have once accrued in a community, every extension of wheat cultivation is detrimental to the national prosperity. It proves also that if all the lands are of equal fertility, rents will never accrue." [62]

Here, of course, Ricardo's intensive no-rent concept is overlooked. Ricardo, however, had laid his argument open to this criticism when he said, "If all land had the same properties, if it were unlimited in quantity, and uniform in quality, no charge could be made for its use, unless where it possessed peculiar advantages of situation. It is only, then, because land is not unlimited in quantity and uniform in quality, and because in the progress of population, land of an inferior quality, or

inquiry, but it was complained, even by a friendly contemporary critic, that he reared nothing in the place of that which he sought to remove." 11-12. One has to read only a small portion of the first six pages of the nineteen page review, evidently referred to by Professor Dunbar, to find almost every word of his criticism. His last statement seems to refer to the whole work, whereas the critic from whom it is quoted wrote only in relation to Phillips' treatment of Malthusianism. "But," said Professor Dunbar, "it was complained, even by a friendly critic, . . . etc." Here is what the critic had to say: "By rejecting the theory of Malthus with its consequences, and taking up the science where it was left by Adam Smith, Mr. Phillips has at once cleared his subject of a cloud of popular errors, and given a value to his work, which does not belong to any of the recent English productions." (*No. Amer. Rev.*, XXXII, 220). Would not the word "praise" rather than "blame" seem more appropriate? The critic erred in saying that Phillips took up the subject where it was left by Adam Smith. Professor Dunbar doubly erred in copying an error with which erroneously to classify Phillips with Adam Smith.

[60] Phillips *Manual of Political Economy*, 107.
[61] *Ib.*, 108. [62] *Ib.*, 108-109.

less advantageously situated, is called into cultivation, that rent is ever paid for the use of it." [63]

Phillips declared that the doctrine was inapplicable in the United States, and that more wheat could be produced here without additional expense per bushel. [64]

The contrast between Ricardo's "one-cause method" and Phillips' practical method is illustrated in their different ways of accounting for rent. Some, not all, of Phillips' causes for rent are: (a) Regarding the soil, he would consider its location in relation to climatic conditions and to the market, its productive capacity for different crops, since marginal land for one crop might not be marginal for another, also the variety, quantity, and quality of products that may be secured from under as well as upon the soil. Further he would allow for numerous advantages in a territory which is so fertile as to admit of condensing a numerous population upon a small territory. (b) Regarding the population, he would consider race characteristics, the degree of advancement, and density as well as the nature of desires and the extent of purchasing power. The ability of a farmer to select proper implements, to understand the rotation of crops, to judge of the best size of farms, his ability to procure suitable seeds, good breeds of animals, and to know how and when to market his products, are of important bearing on the cause of rent. (c) Under the heading of security, he mentions national and individual protection, and the enforcement of contracts. Under this heading may be grouped also freedom from insects, convulsions of nature, plagues, and calamities. Their absence add to the propitiousness of production. (d) Under the heading of costs to produce

[63] Ricardo, *Principles*, 46-47.

[64] Phillips, *Manual of Political Economy*, 109.

and get commodities to the market, he would include such public expenditures as those for dykes, levees, railroads, canals, and roads, and such private expenditures as those for building materials and fuel to provide the farmer with a home, together with the annual outlays such as for wages, interest, and hires. To determine rent, regard must be had for these forces and for the market value of the product.[65] Ricardo's abstract world was simple: Phillips' practical world was complex.

It would be difficult to find a better discussion than Phillips gives of the manner in which agricultural production accommodates itself to the distance from the market. The difficulty of transporting commodities causes lands distant from the market to be turned to the production of such products as are highly durable and that have much value with but little weight and bulk. "In the United States," said he, "innumerable cattle, horses, sheep, and swine are driven to the principal markets on the Atlantic coast from the interior districts, not because these districts are not well adapted to the cultivation of fruits, esculant vegetables, wheat, rye, beans, peas or onions, but because these animals can be sent to a distant market at comparatively small expense."[66] These forces and transportation facilities like the Erie Canal tend toward the equalization of rents and land values.[67]

Unlike Ricardo, he argued that fertility and improvements in agriculture cause rents to rise.[68] His thought was that increasing desires would keep in the lead of augmenting wealth. But he did say that to the extent that prices fall, as a result of the increased supply, money rents would fail to rise.[69]

[65] *Ib.*, Chap. V, and 109, 110.
[66] *Ib.*, 110-119. Quotation, 111.
[67] *Ib.*, 114. [68] *Ib.* [69] *Ib.*, 115.

He considered that an increase in money rents was not of itself a blessing to the country any further than it can make a foreign country pay them. "A rise of rents is, however, one indication of national growth and prosperity."[70] Rising rents on commodities that are not necessities, as Burgundy or Madeira wine, the price of which is enhanced by the growing demand when only a limited amount of soil is capable of their production, are no burden when consumed in the country where produced. If such commodities are consumed abroad, the nation producing them is blessed to the extent that their price exceeds their cost. Conversely, the country importing them is injured, "for by importing them," he said, "it exchanges two, five, or ten days' labor of its own citizens, for one of a foreign laborer."[71]

Here Phillips considers the nation as a whole, and overlooks the ill effects that monopoly rents have on distribution. But the nation, like the individual, which can export goods at high prices, which cost little, and at monopoly prices, is certainly benefitted by doing so.

Unlike Ricardo, he thought that England's Corn Laws were wise. He claimed that protective laws make a country's agriculture more dependable in time of war. Again he argued that, were there no duty on agricultural products, there would be great fluctuations in prices, which would be bad for internal economy. He advocates the peculiar, though defensible, proposition that the higher the general level of prices in a country, the greater is the amount of money taxes the citizens can pay.[72]

In further dissent from Ricardo, but in harmony with Malthus, he insists that the interests of the land-

[70] *Ib.*, 120.
[71] *Ib.*, 116.
[72] *Ib.*, 123.

lords are in harmony with the interests of the whole people. "It is too well understood, to be made a question, that the permanent interests of agriculture, manufactures, and commerce, are intimately blended and mutually dependent, and each equally connected with the permanent welfare of the community." [73]

Phillips treated the concept of diminishing returns as a matter of little or no consequence. Though he conceived this law in the dynamical sense, yet he believed that its consequences would be defeated by inventions, scientific methods, and skill.

If this work be judged as a whole, he seems to have been influenced by Benjamin Franklin more than by any other American writer. Evidently he was a great admirer of Franklin, whose economic writings he edited for Jared Sparks' collection of Franklin's works.

Even to-day Phillips' book is well worth reading. It ably expressed the economic and industrial conditions of this country. It is the work of a well-trained mind, which possessed thorough literary culture. His formidable array of facts compelled respectful hearing by the critics of his time.

Brief attention will be given to certain economists who only incidentally considered rent. It is not within our province to review Due, Vail, Potter, Opdyke, [74]

[73] *Ib.*, 125-126.

[74] In his treatise on Political Economy, he argues to justify private property in land (Pt. II, Chaps. 2, 3). His economy is an art rather than a science. He objects to the economy of J. S. Mill because his work is a product "of one who has been reared and educated under political institutions different from ours, . . . What we republicans need, is a system of political economy in perfect harmony with the other portions of our political edifice." (Pref., v.) He does not give a treatise on rent. The purpose and content of his book are expressed in his own words as follows: "The present brief treatise originated in an effort to ascertain the true commercial policy of our country. That effort was commenced some years ago, and was first directed to an examination of the arguments presented in favor of the protective system and the revenue system." (Pref., iii.)

and Mathew Carey, who, although they were prominent economic writers, left no theories of rent. Nathaniel A. Ware (born in South Carolina, 1780, died in Texas, 1854) was a lawyer, and for a time secretary of the territorial government at Natchez, Mississippi. He travelled extensively, making a study of botany, geography, and the natural sciences. He wrote on the Federal Constitution and on political economy.[75] Ware, like the authors above reviewed, was a national economist. His book was a defense of protection. Radical statements, peculiar ideas, and rash criticisms are characteristic of his writings. He conceived political economy as an art rather than as a science. "Government by circumstances is the golden rule in political economy. . . . I would lay down this rule or maxim as the only one in this science."[76]

On population, Ware's ideas are an admixture. "It is important to have a full and efficient population in all countries, for the defense, wealth, and refinement that ought to accompany every government or association of the human family."[77] "New countries," said he, "with an abundance of land, and not a surplus of labor, ought to encourage the increase of population in every way within their reach, both by a native growth and an immigration."[78] He further said, "The natural check and limitation to an increase of population is the capacity of the earth to support and feed it. To this point it tends, and nothing in the end can prevent its reaching this maximum."[79]

Like Raymond, he considers pride a check to overpopulation. Where pride is wanting, he would with-

[75] Harper's *Encyc. U. S. Hist.*, X (no paging).
[76] Ware, *Notes*, 3.
[77] Ware, *Notes*, 246.
[78] *Ib.*, 247.
[79] *Ib.*

hold licenses from marriage, and declare "illegal all marriages without them and deny to the parents the right of citizen, and to the offspring the rights of legitimacy." [80] Humanity aside, he would have society to "kill off" those who are reduced to beggary. "The moment an individual is base and mean enough to beg, or avail himself of public charity, unless in the shape of a hospital, he is totally worthless and sunk beyond all remedy. There is no foundation in his case left upon which to build him up, no pride, no self-esteem, no ambition—in short, the person is not a man but sunk to the level of the brute; not a biting or a venomous brute, but a mere eating brute. Humanity aside, it would be to the interest of society to kill off all such drones, get rid of such excrescences, and cast off such burdens." [81]

He cannot be said to offer a theory of rent; but, upon the problem of returns from land, he shows a most unbridled optimism. "The capacity of the earth," said he, "to sustain population scarcely knows any limit, . . . If the sort of improvement be made that will control moisture, make at will manure, or apply chemical stimulus to plants, and give to them certainty, every rood will not only sustain its man but its ten men. Experiments show the practicability of fifteen hundred bushels of Irish potatoes to the acre; and, with certainty, that is the food of forty-five persons for a year, in the last resort. And at that rate the world is not yet the ten-thousandth part up to its capacity to sustain life." [82] Evidently Ware was not in harmony with the Malthо-Ricardian theory.

John Rae, though one of the ablest economists of his time, wrote nothing on the population-rent problem.

[80] *Ib.*, 248. [81] *Ib.*, 195. [82] *Ib.*, 249.

The following brief note gives his attitude toward Malthusianism: "The laws of true inductive science are of universal application and admit of no exceptions. If even a single manifest exception occurs, it ought to invalidate the law. . . . Considered in this way, the laws of population as expounded by Malthus will be found to fail." [83]

Rae's basis of thought is, it seems, that man is an animal and more. As animal he must more than reproduce himself, else accidents would destroy the race. Like lower animals, he is led by instinct to propagation. He is more than animal in that he knows the result of his act, and that his dread of results causes him to refrain or to negative them. "For," he says, "the reason that man is more than animal, therefore, to increase, or to merely preserve, the numbers of any society, it is necessary that there exist an *effective desire of offspring.*" [84]

Calvin Colton (1789-1857) is to be classified with the national economists. He was a scholarly man and a voluminous writer on protection. He was graduated at Yale in 1812 and at Andover Theological Seminary in 1815, at which date he entered the ministry. After eleven years, he gave up preaching because of voice-failure. He went to England as a correspondent for *The New York Observer;* and, after his return to this country, he distinguished himself as a writer of political tracts which advocated the principles of the Whig party. He edited *The True Whig* for two years after 1842; and in 1848, he published his large treatise, *Public Economy for the United States.* At the age of sixty-three, he became professor of political economy at Trinity College at Hartford, Connecticut. [85]

[83] Rae, *The Sociological Theory of Capital,* 354. [84] *Ib.,* 356.
[85] Appleton's *Encyc. of Amer. Biog.,* I, 695.

His book may be described as an elaborate defense of the protective tariff. He uses the same argument as did Professor Bowen at a later date, to justify the contention that political economy is not a science but an art, and that different states of society require different economic policies. [86]

He dismisses the rent problem with the statement that America has no landlord class, and that, as a consequence, a consideration of rent would be irrelevant to an American political economy. [87]

He seems not to have understood Malthus' theory of population; and, taking the theological point of view, he speaks of it as a "libel on Providence—a very grave and impious one." Being shocked at the impudence of the Free Trade School, who "in the face of man and heaven" declare this doctrine of "iron despotism," he lays on humanity any fault there may be respecting overpopulation, and assumes that the goodness of Providence will protect us. [88]

The writers mentioned in the latter part of this chapter might well have been eliminated from our study on the ground that they wrote little on the subject, that they made no contribution to the solution of the rent problem, and that they were unappreciative of the principles they were condemning. As writers on economic questions, however, they were influential in shaping public opinion, and, in turn, they reflected contemporary opinion. Had they been academic men, it is likely that their thought would have been gleaned from the leading English texts. But they were of the people, and no impress of the prevailing Maltho-Ricardian thought prevented their expressing, more or less inadequately, American public opinion on the population-rent problem.

[86] Colton, *Public Economy*, 27. [87] *Ib.*, Chap. X. [88] *Ib.*, 159.

The early national economists just reviewed should be judged in the light of the conditions surrounding them. Their desire for a rapid increase in the population was wholly defensible. The best thought of our day cannot agree with their reasoning on the subject, nor can it agree with the English theory which they opposed. The tendency of numbers to multiply and the checks operating against that tendency are working toward a proportion and balance where the numbers of people will be economically adjusted to the resources upon which they must depend. The little attention they gave to land rent was but incidental to their larger thought—that of the development of the national productive capacity. Their definition of wealth as productive capacity is unsuited to a distributive economy such as is engaging the attention of scholars today. Neither is our definition of wealth as scarce goods suitable for reasoning as to the future strength and power of a state. It is interesting furthermore to note that these professional and educated men, writing with the background of practical experience rather than of European custom, regarded land as capital, and rent as fixed by the same laws that govern wages. The group of writers we shall review in the following chapter adhered to a point of view closely akin to that of the classical writers in England.

CHAPTER III

CLASSICAL ECONOMISTS — McVICKAR, COOPER, NEWMAN, WAYLAND, AND VETHAKE

THIS chapter will be devoted to those early American economists, who, on the whole, followed in the lead of the British economists. All of them were college professors, highly educated, and of solid merit. Were ability of authors rather than differences in subject-matter primary in our classification, at least three chapters should be devoted to these economists. But so similar were their writings, and so alike were they to the prevailing viewpoint, method, and content of the Ricardian school, that to present them in different chapters would involve a repetition of ideas.

Circumstances of profession, rearing, and education united to divorce them from the vital issues, needs, and public opinion of America. Not the factory and the farm, but the classroom and the library were their environment. On economics, little had been done in this country. What had been done could have little influence on these professors because our writers were on the wrong side of the Atlantic to command the attention of scholars. As in matters of fashion and style, so in questions of productive scholarship, until recently, Americans have patterned after England and Europe. Heavy teaching schedules, interests primarily in fields other than economics, wide separation from one another, and poor transportation facilities denied to these authors the mutual benefits of association.

They wrote text books; as professors, they realized the need of concise, well written texts on the elements of political economy. And the purpose of their efforts was to meet this need. It is natural that professors of mathematics or moral philosophy or chemistry or literature, as we shall see they were, should turn to Adam Smith, Say, Ricardo, Malthus, or McCulloch, and eclectically formulate the principles of the standard works into suitable texts. Leisure from a variety of duties and specialized labor are necessary to make contributions to science. Able as they were, original contributions to political economy could not be expected from them. Their purpose was formulation, not origination.

Rev. John McVickar[1] was the first of these economists. The son of a well-to-do merchant, he was born in New York city in 1787. When a mere boy of seventeen years, he was graduated from Columbia College, now Columbia University. From the date of his graduation until 1811, he was in England with his father. Thus the formative period of his life was spent in England when economic questions were in the vital air of public thought. At that time, Parliament and public opinion were agitated over England's industrial condition. Discussions and conditions that were shaping the thought of Malthus, Ricardo, James Mill, and McCulloch, were of the environment in which young McVickar's formative period was spent.

Upon his return to this country, he married into a wealthy family, became a preacher, and devoted his energies to the teaching of literature, moral philosophy, and economics in Columbia. This stay in England, when we consider the economic conditions which then existed

[1] *Nat. Encycl. Amer. Biog.*, VI, 347.

in that country and the period of McVickar's life when there, must have largely directed the formation of his ideas on economics. Freed from the necessity of having to acquire a livelihood, and devoted to a profession which removed him from personal touch with the economic conditions of this country, he spent the comparatively little time that he gave to this subject in teaching the so-called Classical economics. He wrote a primer or text for common schools which did not take up the rent problem. His chief service was the editing of McCulloch's encyclopedic article on Political Economy.[2]

In this edition, McVickar makes a note to the effect that the cultivation of inferior soils is not the cause of higher prices, but rather that high prices cause the cultivation of inferior soils.[3] He did not develop the point, and evidently did not recognize that in this statement is a truth so significant as to demand a re-examination of the whole labor-cost theory of value. He considered satisfactory and conclusive McCulloch's repetition of Ricardo's dictum that "corn is not high because a rent is paid, but a rent is paid because corn is high."[4]

Evidently Professor McVickar used this work as a text;[5] and, in the introduction of his lectures, Professor Cooper said he used it as a text in South Carolina College. Cooper said of the work, "Mr. McCulloch's *Outlines of Political Economy,* first published in the supplement to the *Edinburgh Encyclopedia,* has lately been published at New York, at the expense of James Wadsworth, Esq., of the Genesee County, with some very useful notes by the Rev. Mr. McVickar, and which I think the best text book that at present I can recom-

[2] McVickar's notes appended to this article show him strictly in harmony with the ideas of McCulloch.
[3] McVickar, edition of McCulloch, 125.
[4] *Ib.*, 121, 122, and note.
[5] *North Amer. Rev.*, XXV, 113.

mend. The treatise on political economy, second edition, by James Mill, Esq. (a masterpiece of close and logical reasoning) has not yet been republished among us." [6]

This strong recommendation of McCulloch and praise for James Mill inform us at once that Professor Cooper shared with Professor McVickar a high regard for the Classical Economists. Cooper was a man of influence and power, who, in many respects, was the most noteworthy character we have to review. Always he had the courage of his convictions, and he was a fighter who never feared trouble. As defender of Malthus on population and of Ricardo on rent, he met with both extravagant praise and violent criticism. In his defense of the freedom of trade, he was fearless, outspoken, dogmatic, hypercritical, and radical in the extreme. The stand he took on political questions in England caused Edmund Burke to single him out for a special attack in Parliament. He replied with the vigor of a Spartan; soon, however, he was driven from the country. In the memorable days of John C. Calhoun, intense excitement was produced by the rare powers and great learning of Cooper in favor of nullification. Indeed, he was the radical of the radicals in the state of South Carolina. In this connection, Professor J. W. Burgess has characterized him as the notorious, if not famous, British president of South Carolina College; and as a keen and vigorous thinker. Because of his bold stand on economic questions, he was made by Friedrich List the subject of numerous attacks and harsh criticisms. [7] On the contrary, and naturally too, McCulloch praised his book as the best in America. I may be pardoned for giving

[6] Cooper, *Lectures,* ed. of 1826, 13-14.
[7] Hirst, *Life of Friedrich List,* 42, 111, 117, 150, 160, 161, 172, 215, 235, 263, 283.

some extra space to the presentation of his environment, education, and career, because the principles of his economics are so in harmony with the circumstances of his life.

Dr. Thomas Cooper (1759-1840) was born in London, and died in Columbia, South Carolina. He was educated at Oxford, where he became proficient in chemistry, and acquired a knowledge of medicine, law, and political economy. He and James Watt were friends and active members in the Democratic Club of Manchester.

A threat of prosecution was brought against him for the publication of a pamphlet in reply to Burke's *Reflexions on the Revolution in France.* With Watt, he went to Paris, became intimate with the leaders of the Revolution, and offered himself as a candidate for a seat in the Convention, opposing the Duke of Orleans.

Coming to the United States at the age of thirty-six, he settled in Northumberland, Pennsylvania, where his father-in-law, Joseph Priestly, was residing. Only four years elapsed before his presence was made known in this country through his espousal of Jeffersonian democracy and his bitter attack on the administration of John Adams, for which, one year later, he was fined $400 and sent to prison under the Alien and Sedition Acts. He later declared the acts unconstitutional, won his point, and secured a return of his money with interest. Upon his release from prison, he became land commissioner, and a judge of the common pleas. Not long afterward, however, the Senate impeached him for overbearing conduct, and Governor Snyder removed him from office. [8]

[8] After Cooper's death in 1839, his entire collection of letters and personal papers passed to Dr. John Manners, who prepared a two or three volume work in commemoration of Cooper, but he could find no

He then turned to college work. He became professor of chemistry in Dickinson College; later he accepted the chair of chemistry and mineralogy in the University of Pennsylvania. In 1817, he became professor of chemistry and law in the University of Virginia; two years later, the subjects of mineralogy and natural philosophy were added to his labors. Three years after he entered this university, agitation arose on account of his heterodoxy, which caused him to resign.

In 1820, he moved to South Carolina, was elected professor of chemistry, and, one year later, the president of South Carolina College. While there, he taught literature and lectured on political economy in addition to his other labors. But he was not free from trouble. Because of his radical religious teachings, he was tried in 1832 before the Board of Trustees, but was acquitted. Pressure upon him was such, however, that he resigned from the college in 1833 and devoted the rest of his life to the editing and publishing of the statutes of the state. [9]

The bitter opposition and intense excitement in South

publisher for it. This material passed to Mistress Ellen Cooper Hanna, then to Mistress Fanny Cooper Lesesne, the last living at Battles Wharf, Baldwin County, Alabama. During the war, the material was destroyed (*Southern Historical Association,* II, 339). A small collection of material on Dr. Cooper's life was donated to South Carolina University in 1907 (*Ib.* 342). See letters of Dr. Thomas Cooper, 1825-1832, *American Historical Review,* VI, 725-736.

[9] *Nat. Ency. Am. Biog.,* XI, 31. Numerous encyclopedia articles and works of reference give his career. The reference just cited gives a short, but excellent account of him. Palgrave's *Dictionary,* I, 408, describes his life. But the best account I have found of his career appears in the *History of South Carolina College,* Chap. VIII. President J. W. Rivers, speaking before the National Educational Association at Baltimore, in presenting the history of South Carolina College, said, "Under the second president, Dr. Thomas Cooper, special attention was directed to physical science. Educated at Oxford, England, and having been an associate of Priestly and a professor of chemistry and mineralogy at the University of Pennsylvania, Dr. Cooper brought with him an enthusiastic devotion to this department, and gave it prominence not only in the college but in the state. Unfortunately, after being many years president, he busied himself with infidel speculation, and on this account, notwithstanding his great learning and ability, brought the college to the brink of ruin" (*The News and Courier,* Charleston, S. C., Tues., July 25, 1876).

Carolina against the tariff of 1827 is well known. The history of nullification in that state begins with that opposition. The great power of Thomas Cooper was exemplified in that opposition. To quote Professor J. W. Burgess, "The chief personages of the Commonwealth assembled at Columbia [in the summer after the Congressional session of 1826-1827].[10] The principal orator of the occasion was the president of the college of the Commonwealth, Dr. Cooper, a man of rare powers and great learning, an Englishman by birth and education, a free trader in his political economy, and a 'States' rights' man in his political science. In his speech he suggested disunion as preferable to submission to the tariff legislation of Congress."[11] As a result, they adopted a resolution that was inflammatory, though not so much so as was the professor's speech.

Indirectly, Cooper's influence seems to have been felt in the national Congress. It was claimed that the tariff belonged to the domain of the Ways and Means Committee of which George McDuffe of South Carolina was Chairman. McDuffe was a leader of men. Keen intelligence, strong courage, and great prestige were his. As is well known by those who have read his speeches, he based his arguments for the freedom of trade upon the Ricardian theory of rent. Professor Burgess is authority for the opinion that McDuffe learned much of his political economy from Professor Cooper, who "set the direction of thought upon such subjects in South Carolina and throughout a large portion of the South during that period."[12] Speaking further of Cooper's prestige, Professor Burgess said, "A true estimate of responsibilities for the events of 1832 in South Carolina

[10] Parenthesis mine.
[11] Burgess, *The Middle Period,* 159. [12] *Ib.,* 172-173. Quotation, 173.

would probably hold him more culpable than Calhoun himself." [13]

Professor Cooper wrote his *Lectures on* (the Elements of) *Political Economy* when he was sixty-seven years of age. Considering the circumstances of his education and his maturity when he came to this country, together with the fact that his teaching was largely confined to the subjects of natural science, there is little wonder that his lectures can claim the merit of but little originality. The author says, "that he writes not for the adept. It was his business to introduce the pupils under his care to a full knowledge of the science in all its departments; and he hesitated not to gather his materials from every quarter, where they most advantageously presented themselves to his view, without always trying to throw over them an air of novelty, and sometimes without even changing the language of the author to whom he stood indebted, when it appeared to him to express the reasoning and the principles clearly and forcibly." [14]

In the first year of his lectures, he used Mistress Marcet's *Conversations,* and McVickar's republication of McCulloch. He advised those who wished to pursue the subject farther to read Adam Smith, Say, Malthus, Ricardo, McCulloch, James Mill, and Cardozo. He indicates that these were the sources from which his lectures were prepared. [15]

Professor Cooper was an indefatigable worker whether on chemistry, medicine, law, agriculture, religion, or political economy. His writings refer to numerous sources. For instance, on population, which we will now consider, he referred to, and evidently had

[13] *Ib.,* 173.
[14] *North Amer. Rev.,* XXV, 409, and Cooper, *Lectures,* Pref. v-vi.
[15] Cooper, *Lectures,* 3d ed., Pref., v-vi.

read, Malthus, Godwin, Wayland, Jarrold, Graham, Ensor, Grey, Everett, Herbert,[16] Wallace, Darwin, and Townsend.[17]

His attitude toward Malthusianism is easy to ascertain. He gives a concise statement of the doctrine, and concludes with these words: "Dr. Malthus has incurred much obloquy for these harsh doctrines; but their manifest truth and great importance have at length produced conviction in the minds of the greater number of those who have turned their attention to political economy; and they may now be considered as settled."[18]

Referring to the claim of Malthus that population increases in a geometrical ratio while food increases only in an arithmetical ratio, he said, "this being an undeniable matter of fact, may be assumed as such to form the basis of any reasoning."[19]

Contrary to Raymond, Everett, and Cardozo, he taught that to the returns of machinery "there must be a term where it ends—a maximum."[20]

As above noted, Everett makes much of the point that population is not supported from the same soil that it occupies. In reply to this Cooper said, "What may be affirmed of any given quantity of land in this respect [referring to the law of diminishing returns][21] may be affirmed of any other, and therefore of all: therefore, the proposition is general, that population tends to accumulate much faster than the means of subsistence, upon a limited territory."[22]

Cooper adhered to the wage-fund doctrine in its true

[16] *Ib.*, 1st ed., 232.
[17] *Ib.*, 11.
[18] *Ib.*, 11, 12. Quotation 12.
[19] *Ib.*, 232.
[20] *Ib.*, 233.
[21] Parenthesis mine.
[22] Cooper, *Lectures*, 1st ed., 233.

sense,[23] and not as it is doctored up and explained away by certain later writers. With this deficient weapon, he made an attack upon Everett's *New Ideas,* which claimed that an increase of population is a cause of abundance.[24] His theory of rent is but a restatement of Ricardo's theory, so it would be but a repetition to give it here.[25]

Like McVickar and Cooper, our next author, Samuel Phillips Newman (1797-1842), was a professor whose interests were mainly in subjects other than political economy. He was the son of a minister, a graduate at Harvard (1816) and at Andover Theological Seminary. He was himself, like McVickar, a minister. After teaching at Bowdoin for fourteen years, he became principal of the State Normal School, Barre, Massachusetts, where he remained from 1839 to his death.[26]

His special interest was in English, which he taught and upon which he wrote several works. While at Bowdoin (1835), however, he gave lectures and wrote a text on the elements of political economy. *The Wealth of Nations* seems to have been almost his only source, and where he departs from it, confusion and contradiction render the following out of his reasoning a hopeless task.

He superficially disposes of the population problem as follows: "The period when the surface of the earth shall be so covered with inhabitants that population shall equal the means of subsistence, is so distant, and all calculations and reasonings relating to this state of things so indefinite and shadowy, that the whole subject is one of no practical importance."[27]

[23] *Ib.*, 239. [24] *Ib.*, 236-237. [25] *Ib.*, 13, 32-33, 84-87, 221.
[26] Appleton's *Encyc. Am. Biog.*, IV, 505.
[27] Newman, *Elements*, 254.

He speaks of rent only in connection with land. His theory is simple: products minus costs equal rents.[28] Like Adam Smith, he thinks that rent enters into price. Wages, payments for capital, and rents, he makes the cost items entering into the price of agricultural commodities.[29]

A professor of English in a country where there existed no rent problem, at least in its political aspects, is, of course, not supposed to give the rent problem serious consideration. He was yet in his thirties when he wrote; and want of time, his environment, and professional duties permitted him no more than a passing consideration of economic questions. His book is little more than a compendium of ideas, somewhat ill-digested, gained from a reading of *The Wealth of Nations.*

Next in order of consideration is Francis Wayland (1796-1865). His parents were natives of England, who came to the United States in 1792, four years before Francis was born. The father, a Baptist minister, was away from home much of the time. The son received his early training from his mother, "a woman of superior mind and discriminating judgment."[30] He was graduated at Union College at the age of seventeen, studied medicine for three years, and entered Andover Theological Seminary in 1816. He left the seminary to become a tutor in Union College. After four years of service, he accepted the pulpit of the First Baptist Church in Boston. In 1823, he became famous as a preacher. He accepted a professorship at Union (1826-1827), but resigned before the end of the year

[28] *Ib.*, 275. [29] *Ib.*, 127.

[30] Good brief references on Wayland's life are: Appleton's *Encyc. Amer. Biog.*, VI, 397-398; *New Inter. Encyc.*, XX, 377-378; Palgrave's *Dict.*, III, 660; *Memoir of the Life and Labors of Francis Wayland* by his sons. The last named is particularly valuable.

to become the fourth president of Brown University, where he served for twenty-eight years. His administration has been called the Golden Age of the University. At the age of fifty-nine, he resigned to become the pastor of the First Baptist Church, Providence, Rhode Island, and to devote himself to prison reform and other social work.

Like the other professors under review, he was not primarily an economist. He wrote nineteen books on as many subjects, besides numerous pamphlets and newspaper articles. His *Elements of Political Economy* (1837) was, as a text, the best work previous to the Civil War, and probably as popular as any American text on this subject. It survives, and is used as a text in some places to this day. Before 1867, as many as 50,000 copies of his larger treatise and 12,000 of his smaller had been sold. [31]

Professor Dunbar said, "President Wayland's book (1837) is the only general treatise of the period which can fairly be said to have survived to our day; and this, it must be admitted, owes whatever value it has to its manner of presenting for easy comprehension some of the leading English doctrines, of which, however, it may be doubted if the author ever fully recognized the bearing." [32] The author's own statement that when his "attention was first directed to the science of political economy, he was struck with the simplicity of its principles," [33] bears evidence for Professor Dunbar's statement. Ricardo had a different experience. It was after Ricardo had produced his great work that he confessed his inability to find his way through the "labyrinth" of the value problem. Our author said, "Cost,

[31] Wayland and Wayland, *Memoir*, I, 389.
[32] Dunbar, *Essays*, 12.
[33] Wayland, *Elements*, Pref., iii.

that is, labor bestowed, is the foundation of exchangeable value." [34] But he makes the one most important, and all pervading principle of his work the law of supply and demand. He classifies land as capital, [35] speaks of rent as interest,[36] makes the lower margin to depend on price rather than the reverse, [37] and teaches that rent enters into price. [38]

How can one maintain these principles and still hold to the Ricardian theory of rent? If one turns, however, to his chapter on rent, it is at once apparent that, so far as the description of the doctrine goes, he out-Ricardos Ricardo himself.

His treatment of the principle of population may be expressed thus: "Population," he says, "always follows capital. It increases as capital increases; is stationary when capital is stationary; and decreases when capital decreases. And hence, there seems no need of any other means to prevent the too rapid increase of population, than to secure a correspondent increase of capital, by which that population may be supported." [39] On the whole, however, his teaching supports the theory that an increase of capital forms a check to population in the form of a higher standard of living.

Wayland was influenced, evidently, by the Malthusian concept of the minimum of subsistence as the regulator of population, and by the American idea of a growing population causing an increase of subsistence at a faster rate than the increase of population. Unlike and conflicting ideas were thus at the basis of his reasoning.

[34] *Ib.*, 24.
[35] *Ib.*, 31.
[36] *Ib.*, 341.
[37] *Ib.*
[38] *Ib.*, 355.
[39] *Ib.*, 305.

Impliedly, his capital fund is reduced to a mere wage-fund, with the result that population follows wages. [40] He does not mean the rate of wages, for, ruling out combinations either among capitalists or laborers as expensive and unjust, he finds that competition brings wages to their proper level. [41] The context makes "proper level" synonomous with Ricardo's standard wage. It follows that the increase of population, together with the force of competition would tend to keep wages about the same through time. The size of the fund, then, rather than the rate of individual wages, would be the regulator of population. With Malthus, he teaches that, in the United States, population doubles once in twenty-five years. And, in the same paragraph, he, in harmony with the "Early National Economists" we have reviewed, tells us that the earth can produce more than its inhabitants consume. [42]

I have said that his opinion wavered between the English and the American ideas respecting the wage-fund. In brief, what were these ideas? The wage-fund idea which enjoyed great vogue in English economic literature was only an assumption. A certain fund of capital, it was assumed, in the hands of employers, was set aside for the express purpose of paying wages. Suppose in a given time the fund to be 1,000 and the number of laborers 100, then $1{,}000 \div 100 = 10$, or the average wage. The point of emphasis was not productivity, or the result of the application of labor, but rather that the fund set aside was necessarily meted out to laborers by the principle of a simple division. The content of this fund was capital only.

Resting upon as superficial a basis and reflecting a

[40] *Ib.*, 308.
[41] *Ib.*, 303-304.
[42] *Ib.*, 302.

similar mode of thought, was the subsistence theory, which looked not to capital but to land alone as the determinant of wages.[43]

This doctrine of a predetermined fund for wages grew out of the industrial situation in England. Closed in by tariff walls, the country was dependent on the annual crop for the subsistence of the coming year. Close the eyes to consumers other than laborers, forget that wages consist of more than food, and the idea of a predetermined wage-fund will result.

American economists, on the contrary, recognized a large surplus upon which they could draw at will. So far as they reasoned upon a wage-fund basis, they had in mind a concept so elastic as to lose the nature of a fund. Necessities, in their thought, were not produced *for* but *by* population. "Population as a cause of abundance" pervaded their thought.

Wayland could not reason clearly upon the problem of population because he did not see a difference between these points of view. The distinction between static conditions and dynamic conditions, he did not

[43] We must allow that wages are paid out of capital, but for this reason we must not jump to the rigidity of a wage-fund theory. Or let us grant the wage-fund; where does it lead us? Or how does it aid us in our reasoning? Precisely the same reasoning holds for the existence of an interest-fund, or of a rent-fund, or of any other fund, for that matter.

But, it may be asked, why object to this theory, if it is of no significance in itself? It is not always the importance of a theory in itself that demands attention; its effect upon furthering or retarding other ideas is the point in question regarding the wage-fund. Its effects in the main, were two. With a superficial analysis that took the appearance of a truism, it glossed over and hid from view the real problem of wages, and thus tended to remove it (the real problem) from discussion, with the consequence of retarding the development of thought.

Of a different nature was its other effect: unbending rigidity of the fund gave an air of justice to most unjust conclusions. To strikes or efforts on the part of particular groups of laborers to raise their wages, the capitalist, with the address of a moralist and with the sanction of science, could object on the ground that to the extent some are aided others must suffer. On the same ground, workmen were made dependent on capitalists, who were regarded by the wage-fund theorists, as the great benefactors of the race. Upon the sacrifices of laborers and the self restraint of these beneficient capitalists depended the size of the all important wage-fund.

recognize. Wayland's economics was eclectic. Odd moments taken from the numerous cares of busy men permit little more than a putting together eclectically of ideas from others. Wavering between American and English ideas on population, his lines of thought tended in opposite directions.

On the rent problem, Ricardo's emphasis was upon fertility, while Thünen placed particular emphasis upon location. [44] Wayland correctly emphasized equally both points of view. He said, "Fertility being the same, productiveness will be as situation; and, situation being the same, productiveness will be as fertility." [45]

His account of the origin, progress, and measurement of rent is but a repetition of Ricardo's description of rent. [46] Our author gives a splendid and practical discussion as to the effects of transportation, markets, and climate on land rents. [47] He shows how products reflect a price back upon land, but he goes further to show that the price of land is materially affected by its beauty of situation as well as by the intellectual and moral character of the neighborhood. [48] He rightly emphasizes situation in city rents; as sites for dwellings, warehouses, factories, manufactures in proximity to water falls and the like. [49] The rent of mines, he would also have depend on location as well as on the quality and workableness of the mine. [50]

Although, in respect to agricultural lands, he holds with Ricardo to the differential rent theory, he still maintains that rent enters into price. "The price," he

[44] Thünen, *Der isolirte Staat,* 1st ed., 182. (*Der isolirte Staat in Beziehung auf Landwirthschaft und Nationalökonomie*).
[45] Wayland, *Elements,* 340.
[46] *Ib.,* 340-344.
[47] *Ib.,* 344-348.
[48] *Ib.,* 348-349.
[49] *Ib.,* 350-352.
[50] *Ib.,* 352-353.

said, "of a bale of cotton is made up of the rent of the land on which it grew, the wages and expense of the laborers who were employed in its cultivation, the labor and skill of the agriculturalist who superintends the labor, the cost of seed, manure, utensils, etc." [51] This statement, however, does not convict him of contradiction, because his emphasis is on the demand side, and it is consequently price that determines the lower margin rather than the reverse. Marginal cost, as Ricardo conceived it, coincides with price; but Wayland's conception is that this margin is the effect of price rather than the cause of price.

The influence of two unlike economics over his mind makes him hard to interpret. In seeming contradiction to what has been said, he bases the origin and progress of rent on the fact of poorer soils coming under cultivation; [52] again, his assumption is that the productivity of land is a fixed number of bushels. [53] These assumptions, however, are used in rather graphic illustrations and are out of harmony with the main tenets of his argument.

Now, if he did hold to the "limited returns" concept, as his illustrations seem to indicate, he could not teach the tendency of population to double "once in twenty-five years" and that "the earth, every year, if it be properly tilled, and if capital be properly employed, produces more than its inhabitants consume." [54] He did not appreciate the law of diminishing returns; and, on the whole, he favored a rather rapid multiplication of population.

Following Wayland's first edition of the *Elements,*

[51] *Ib.*, 355.
[52] *Ib.*, 341.
[53] *Ib.*, 88-89.
[54] *Ib.*, 302.

appeared Vethake's well written *Principles of Political Economy* (1835). We have seen that McVickar's edition of McCulloch was used by its editor in his classroom. Both Cooper's and Wayland's books were composed of lectures previously delivered by them to their classes. And Vethake inscribes his book, "To the numerous young men who, at different periods during the last sixteen years, have attended his lectures on political economy." [55] Like Wayland, Vethake was a professor who was not in close touch with the industrial realities of his country. He was not even an economist primarily, as will be seen through a brief review of his career.

Henry Vethake (1792-1866) was born in Essequibo (now Demerara), British Guiana, and he died in Philadelphia. When he was four years of age, his parents moved to the United States. At Columbia he took the degrees A.B. (1808) and A.M. (1811). Subsequently he studied law. He was an instructor in mathematics and geography in Columbia College in 1813; and, from 1813 to 1821, he taught mathematics, natural philosophy, chemistry, and mechanical philosophy at the College of New Jersey (now Princeton University). He left that post to become professor of natural philosophy in Dickinson College, a position which he held from 1821 to 1829. He was professor in the University of the City of New York (now New York University) in the years 1832 and 1833, during which time he taught mathematics and astronomy. From 1834 to 1836, he was Rector of the board of trustees and President of Washington College (now Washington and Lee University), where he taught moral philosophy and mathematics. From there, he went to the University of Pennsylvania as the professor of moral philosophy and intellectual

[55] Vethake, *Principles*, iii.

philosophy (1836-1855). He was Vice Provost from 1846 to 1854, and Provost from 1854 to 1859. He became professor of higher mathematics at the Philadelphia Polytechnical College in 1859, where he served until his death. He received the honorary degrees of A.M. from the College of New Jersey (1816), the same from Dickinson (1827), and LL.D. from Columbia (1836).[56]

The first part of his preface states his intention to avoid reference to other writers. The assistance of references, however, is not needed to show us that in all but a few instances his thought is the same as that held by McCulloch. The one author to whom he makes an important reference, and that is an extended one, is McCulloch.[57] The fact that he edited McCulloch's *Dictionary of Commerce* evidences further appreciation on his part, of the writings of that author. He was a free trader,[58] and his views on international commerce are little more than a re-wording of Ricardo's teachings.

He thinks of the total income as being divided into the three shares of rent, profits, and wages. By far the larger portion of the people must, he teaches, depend on wages for support; therefore the great regulator of population is wages.[59]

He said that wages were regulated by the law of supply and demand, but it was physical supply and physical demand that he had in mind. By the supply of labor he meant the number of laborers, and the number of laborers was in proportion to the whole population. The demand for labor "is measured by that portion of the capital of a country which consists of wages, and which,

[56] Palgrave's *Dictionary*, III, 617-618.
[57] Vethake, *Principles*, 409-410.
[58] *Ib.*, Chaps. II-XIV.
[59] Vethake, *Principles*, 99.

again, is proportional to the whole amount of that capital; it will follow that the rate of wages is dependent on the relation which the capital of a country bears to the numbers of the people." [60] Vethake's mathematical training well suited him to an arithmetical wage-fund theory, which he persistently maintains throughout his discussion of population. Assuming this as a truth beyond debate, he turns his attention to forces regulating the size of the dividend and of the divisor.

Turning now to forces which keep population in abeyance to the fund prepared *for* it, he presents with clearness and force, but adds nothing new to, the theory of the positive and preventive checks. [61] He places dependence chiefly upon the elevating of man's desires and standards of living. To this end, he advocates the elevation of morals, the increase of foresight through educational processes, progress in arts, and governmental interference regarding the well being and marriage of the poor, ignorant, and unfit.[62]

His discussion on population centers about the word "tendency." He uses the term, he says, in analogy to the use made of it in mechanical philosophy from which it is borrowed. He said, "A body, placed in one of the scales of a balance, is very properly said to *tend* towards the earth." [63] He further said, "In morals also, we continually compare the influence of motives on the mind with the action of mechanical causes on matter." [64] His reasoning brings him to the result, "that this tendency is always in exact proportion to the force of the check which is presented by the difficulty of procuring the means of support; and consequently, that it is greatest,

[60] *Ib.*, 100.
[61] *Ib.*, 101.
[62] *Ib.*, 110-115, Chap. VII.
[63] *Ib.*, 108. [64] *Ib.*

not when population increases *most rapidly,* but, on the contrary, when this increase is the *slowest.*" [65]

It is difficult to determine just what Malthus had in mind when he used the term "the principle of population." Vethake makes his use clear, if it can be said that his definition of "tendency" is clear. "This tendency," said he, "I shall hereafter designate as the *principle of population.*" [66]

According to his use, the word "tendency" indicates nothing as to actual movement. If this tendency, as he claims, is in exact proportion to opposing force, and greatest when the increase of numbers is slowest, it follows that, if counteracting forces were nil, tendency, which is in exact proportion, would also be nil. Secondly, if tendency is greatest when increase is slowest, it would be less when increase is more rapid and nil when increase in numbers is most rapid. Our author, to use his own words, wished tendency to be "employed in perfect analogy to the use made of the term tendency in mechanical philosophy." [67] Then, a train running at the fastest possible speed would have no tendency to do so, while one standing would have the greatest tendency to move, or this same reasoning will apply to his example of the weight on one of the scales of a balance.

Without further comment on the ambiguity of the word "tendency," without considering the inappropriateness of the analogies between the moral laws regulating population and the physical laws operative in mechanical philosophy, and without showing that analogies from biological science might be more appropriate, let us turn to his views on rent.

[65] *Ib.,* 109.
[66] *Ib.*
[67] *Ib.,* 108.

Respecting the agents which produce rent, Professor Vethake seems not to be limited by the orthodox teachings. In fact, he saw glimpses of, and at times gave expression to, the rent problem in its broader aspects. But, after stumbling into the right, he unfortunately turned to the wrong. He mentions agents producing rent to be: land, mines, fisheries, manufactures, stands for business,[68] and monopolies.[69] His discussion of capital,[70] as well as his definition and treatment of rent, in reality classifies land as capital.

He does not formally define rent, but the following quotation is in strict keeping with his discussion of the subject: "Political Economists have found it expedient to separate from the profits received in any employment that portion by which they may exceed in amount those yielded to the capital invested most disadvantageously in the same employment, and have designated such excess by the name of rent. All land, consequently, yields rent, excepting the land just taken into cultivation; and so too does every portion of capital which is applied to the land before cultivated, with the exception only of what is the last applied."[71] This makes rent a portion of profits. It is the excess over costs. This is further illustrated when he says that, if $500 be paid for the use of a farm, it is an error to denominate the whole payment as rent, since a portion is payment for the capital in the land.[72] He speaks of a lease being composed of usual profits and of extra profits or rent. Vethake insists, elsewhere, that rent is a product of labor.[73]

[68] *Ib.*, 68.
[69] *Ib.*, 70.
[70] *Ib.*, Book I, Chaps. IV, V.
[71] *Ib.*, 70.
[72] *Ib.*, 71-72.
[73] *Ib.*, 74.

So far, he has made rent a payment by one person to another, as Ricardo did when he was contending that rent does not add to the wealth of a nation. Also he accompanies Ricardo in making two uses of the term rent when he claims that, if the farmer till his own soil, the excess is rent.[74] This confusion of the strictly economic concept of yield with the contractual or legal concept of rent, pervades economic literature and defeats clear reasoning on that most fundamental problem, proportionality.

Like Ricardo, he finds that cost of production under the most unfavorable circumstances determines price.[75] This enables him to agree with Ricardo that rent does not enter into price.[76]

On diminishing returns, he takes, as does Ricardo, a static view regarding the instrumentalities of production and a dynamic view of the growth of population. Both apply the law intensively as well as extensively.[77] Vethake would make the law applicable to all rent-bearing agents;[78] but, in conflict with some of his statements, he expresses belief in constant returns to manufactures.

A treatise on this group of economists would be incomplete without mention of the work of Marcius Wilson. This author wrote a volume on *Civil Polity and Political Economy* (1838), in which he followed very closely the work of President Wayland. His was a brief high school text, in which he attempted two fields of such proportions as to make impossible the development of a theory of rent.

He teaches that land is capital. He classifies tilled

[74] Cf. Ricardo, *Principles*, 48; Vethake, *Principles*, 71.
[75] Vethake, *Principles*, 69-70.
[76] *Ib.*, 70. [77] *Ib.*, 69. [78] *Ib.*, 68-69.

land as productive capital and as fixed capital.[79] "Rent, or the price paid for the use of land, is regulated by the same principles that regulate the interest upon other kinds of capital."[80] The principle regulating interest is, he teaches, the law of supply and demand. He would make due allowance for risk.[81]

On the whole, his ideas were in harmony with those of the more optimistic American economists respecting the population problem.

The economists reviewed in this chapter were somewhat confused in their reasoning upon the rent problem. Their writings followed closely the form of expression used by Ricardo, and they copied his differential method of explaining land rent. But the comparison between their thought and that of Ricardo ends with the outward form of presentation. They mistook the form of his writing for its content, and gave little more than a veneer of the Ricardian theory of rent. They took the law of supply and demand, not without many exceptions, as the regulator of value; and consistently with this position, they reasoned that labor cost could affect value only by affecting supply. They defined Malthusianism and gave it favorable comment; but, in the course of their reasoning, they turned deliberately from that doctrine, and favored a larger population to supply the industrial need of America; they not infrequently regarded land as capital, and spoke of rent as synonymous with interest; they regarded the margin as price-determined rather than price-determining, and, in consequence, they regarded rent as a part of the cost of producing goods.

[79] Wilson, *Civil Polity and Political Economy*, 130, 131.
[80] *Ib.*, 181.
[81] *Ib.*, 177-186.

The confusion in thought of the writers who have been reviewed, bears evidence of two unlike influences —the knowledge that they acquired from books was gleaned from the English texts, whereas the practical problems that they faced in the new world were such that the English writings provided no solution. The following chapter will be devoted to the writings of J. N. Cardozo, a capable opponent of Ricardo, whose ideas were of such merit as to make his treatment worthy of a separate chapter.

CHAPTER IV

JACOB NEWTON CARDOZO

JACOB NEWTON CARDOZO,[1] like Ricardo, was a descendant of the Portuguese Jews. He had only a common school education, which he received in the public schools of Charleston, South Carolina.

The Southern Patriot, under his direction, became a recognized free trade organ. In a political capacity, Cardozo was thrown into contact with Robert Y. Hayne, John C. Calhoun, and George McDuffe. His memorial against the tariff of 1828 was unanimously adopted by the Charleston Chamber of Commerce. Frequent references, in his *Notes on Political Economy,* to Adam Smith, Say, Sismondi, Malthus, and Ricardo, indicate a familiarity with the ablest works on political economy.

[1] (a) Lamb's *Biog. Dict. of the U. S.* gives accurately the early career of Cardozo. It erroneously gives the name Isaac N., and says that he was drowned in the James river, Aug. 26, 1856. I, 566.

(b) *The Twentieth Cent. Biog. Dict. of Noted Americans* gives the same description. II (no paging).

(c) Appleton's *Encyc. of Amer. Biog.* errs in this respect. I, 523.

(d) *North Amer. Rev.,* XXIV, 169-187, gives a contemporary review of the book Cardozo wrote on political economy. The initials published here are J. N.

(e) Palgrave's *Dict.,* I, 225, gives a description of the author under the name Isaac N. Cardozo. This was written by D. R. Dewey.

Biographical references to Cardozo are conflicting. The same character has frequently been described under the name Isaac N. Cardozo. The initials J. N. instead of I. N. appear in his book and in the "Southern Patriot" while he was its editor. I take the following from a card which is found in the card catalogue of the Library of Congress: "Not Isaac Newton, as very generally entered in American biographical works of reference: the man there described as editor of the *Southern Patriot* and leader of the Charleston (S. C.) *Evening News,* and said to have been drowned in 1850, is Jacob N. who was alive in 1866, and published his reminiscences. One Isaac Cardozo was a clerk in the *Southern Patriot* office at the time J. N. was editor."

Cardozo's little book, "*Reminiscences of Charleston,* by J. N. Cardozo, Charleston, 1866," makes it clear that the reminiscences were written in

Cardozo was an ingenious writer who had the courage of his convictions. His training in economics, his editorship of a leading paper, his relationships with men famous in politics, his victorious opposition in South Carolina to the tariff of 1828 when Calhoun made his turn against national powers, were forces which led him to great prestige in the South. But, with the passing of the issue which gave him power, Cardozo was forgotten, and the influence of his work was but transient.

Considering the close relationship between the freedom of trade and the Ricardian theory of rent, we should expect a staunch free trader of that time to be in harmony with the orthodox teaching on rent. But, in this particular, Cardozo differs from all the other economists we have to review. That Ricardian rent and the freedom of trade tended to go hand in hand was evidenced in the sixties when a tendency was started from national economy to the freedom of international commerce. It seems at this time that there was a reversion on the part of American economists back to the Ricardian theory of rent as a basis for their argument. In the case of McDuffe, one finds a striking example, for, as is well known, his arguments for the freedom of trade were often based on the Ricardian theory of rent. But

1866 and that their author was the editor of the *Southern Patriot* and founder of the *Evening News*. A few quotations from the *Reminiscences* will bear out the point: "An absence of five years from Charleston, a city in which I had resided sixty-five years, . . . " is taken from his preface, which is dated June 17, 1866, at Charleston. He speaks of himself as active in the formation of the Charleston Chamber of Commerce, (Cardozo, *Reminiscences,* 23), as a framer of a memorial to Congress against the "Bill of Abominations" (Cardozo, *Reminiscences,* 24), in the "year 1827 or 1828." "Our connection with the press dates back to the year 1817, when the author of these *Reminiscences* became the writing editor of *The Southern Patriot*" (Cardozo, *Reminiscences,* 31). "*The Southern Patriot* was purchased by J. N. Cardozo on the first of January of this year, who continued as sole proprietor and editor until April, 1845. . . . ." (Cardozo, *Reminiscences,* 34). "The author of the *Reminiscences* then founded *The Evening News*" (Cardozo *Reminiscences,* 34). Now that the founder of *The Evening News* and editor of *The Southern Patriot* was author of *Notes on Political Economy* has never been questioned.

Cardozo was as strong an opponent of Ricardian rent as he was of the tariff.

He opposed Malthusianism. "The increase of population . . . depends," said he, "on the extent of the improvements in agriculture, and inferior land is laid down in tillage exactly in proportion as these improvements extend. This is the reverse of the new theory which connects the augmentation of population and produce with the increased difficulty instead of the increased facility of production. This is only an extension, however, of the principle with whose wonderful results in manufactures we are familiar." [2]

Cardozo would readily admit that, under static conditions respecting ways and means of production, an increase of population would result in a diminution of returns per capita. To him, however, this is not worthy of consideration. He implied a standard of living beyond which population will not increase; he thought that the growth of science and invention compose a stronger positive force than is the negative force of resistance. Thus, through time, there is an ever-growing increase of production; and the increase of population is just rapid enough, by maintaining the same standards of comfort, to consume this augmentation of products. [3] From this, it must follow that there would be no variation in the relation between the supply and the demand. With this in mind, let us briefly review his reasoning on rent.

His approach to this subject is through a criticism of Ricardian rent. Ricardo teaches that rent begins when tract number 2 comes under cultivation, and that it increases as 3, 4, 5 and on down are brought under cultivation. [4] Contrary to this, Cardozo reasons that

[2] Cardozo, *Notes*, 35.
[3] *Ib.*, 35, 36.
[4] Ricardo, *Principles*, 47, 48.

rent begins "from the moment land is taken into cultivation." [5]

Ricardo teaches that the origin of rent is to be found in the different qualities of land or uses of land, with respect to its productive powers. [6] Contrary to this, Cardozo reasons that "relative fertility can only account for the inequalities of rent; it can neither explain its origin nor its increase. If rent be that portion of the product which is paid for the use of the original and indestructible powers of the soil, its amount must be in proportion to those powers, and can be increased only as they increase, or diminish as they diminish . . ." [7] He teaches that increased productivity means that acquired fertility is added to the land. "The original and indestructible powers of the soil, as they do not admit of diminution, cannot admit of increase. Land of different degrees of fertility will yield different rents. Relative fertility will therefore account for relative rent, and nothing more." [8]

In reply to Ricardo's no-rent land concept, Cardozo said, "This is, however, assuming what does not exist." [9]

Ricardo teaches that, as inferior land is brought under cultivation, the landlord is doubly blessed because he obtains a greater share and because the commodity in which he is paid is of greater value. [10] Contrary to this, Cardozo reasons that the "new school" (meaning the Maltho-Ricardian) make "the rise of raw produce to follow from the difficulty of production, and yet they state that the demand for additional produce precedes, as it must, the cultivation of inferior land, which is, in

[5] Cardozo, *Notes*, 33-34.
[6] Ricardo, *Principles*, 46.
[7] Cardozo, *Notes*, 21.
[8] *Ib.*
[9] *Ib.*, 31.
[10] Cf. Ricardo, *Principles*, 60; Cardozo, *Notes*, 24.

fact, saying that the increase in price is both cause and effect." [11]

He thinks that the law of supply and demand makes it inconceivable that the landlord should be doubly blessed; for, as the supply increases, prices would be lowered. He thinks that money rent and corn rent must vary in inverse ratio. [12] Cardozo was in error in laying this down as an unvarying rule. He overlooked, in his argument, both the increase and the elasticity of demand. According to the theory of differential land rents, money rent and corn rent may go up at the same time. Ricardo was right in maintaining this, but his error was, as I have shown, [13] in the claim that rent does not add to the wealth of a nation when the word "rent" is used in the sense of a physical return.

It is difficult to determine just what Cardozo's rent-concept is. Under restricted competition where land is purchased for hire, he said:

> Its rent must continue invariable in amount, and must be governed by the same law which regulates the interest on a loan of capital to be employed productively by the borrower. The amount of rent can never vary—can never increase nor diminish, because the natural fertility of the land, its "original and indestructible powers," are always supposed to be the same. It is the use of these powers for which rent is paid, and whatever value the proprietor sets on them or what they have cost him, must determine, on the principal of an ordinary loan, the amount of value annully to be paid for their use, in other words, the amount of rent. The price of food raised on such land, the price of land itself and its rent will be at fair competitive rates which we may call the natural price and rent of land.[14]

This rent, he claims, enters into price precisely as do profits and wages.[15] He gives no formal definition of

[11] Cardozo, *Notes*, 24-25.
[12] *Ib.*, 23-24.
[13] *Supra*, ch. I.
[14] Cardozo, *Notes*, 27.
[15] *Ib.*, 38.

rent, but his concept might be worded as follows: Rent is the competitive price paid for the use of the unvarying natural fertility of the land.

His reasoning implies that population increases in an unvarying proportion to what he terms "acquired fertility." He assumes both a common standard of living and the inelasticity of individual demands. As we have seen, he allowed for no variation in the relation between supply and demand.[16] Demand grows to the extent that production is augmented. It must follow that individual demands and the supply per individual are constant.

In the light of this, can it be said that the price paid for the original and indestructible powers of the soil is unvarying? Yes, if we capitalize this natural fertility and regard rent as a per cent. No, if we regard rent as an amount paid for the uses of these original qualities; for their amount increases with every force that converts potential use into effective use. Subconsciously, Cardozo regarded rent, I think, in the sense of a per cent. Now that he seemed to confine rent to natural fertility, what would he term the price paid for the use of acquired fertility? Contextually, he regards it as profits on capital; for acquired fertility is, in places, it seems, assimilated to the productivity of machinery and scientific application. But, if the payments for both natural and acquired fertility are assimilated to profits, and are regarded, as they seem to be, as a per cent, why differentiate between them by calling the one payment rent and the other profits?

Cardozo's constructive argument is so involved in uncertainty as to make it difficult to determine what it was he meant. He does admit that rents are variable, and that they are often above "natural" rents; but, in

[16] *Ib.*, 109.

language very similar to that which Raymond used, he declares that such rents are due to the unequal distribution of lands, to the want of good titles, to enclosures by the aristocracy, and, in short, to all barriers which destroy free competition.[17] This extra-natural rent, or that beyond a competitive rate, he termed monopoly rent,[18] and said that it exactly measures the degree of monopoly.

On diminishing returns, his argument was practically the same as that of Senior[19] and Chalmers,[20] which appeared a short time afterwards. He holds to the concept of static diminishing returns from land and of historical increasing returns from manufacture. "The results of skill and science in manufactures are," he said, "visible to all—they are embodied in machinery. But in agriculture, they become a part of the soil, or are blended with it and cannot be distinguished from it. We are therefore urging no novel principle in insisting that in agriculture the inventive powers of producers will be as efficacious from the same causes as in manufactures. That they will be equally efficacious is necessary to the level of profits or to an equality of benefit between agriculture and other employments."[21]

In this chapter, we have found Cardozo, the successful editor and careful student of public affairs, to be opposed to Ricardian rent and Malthus' theory of population. He reasoned that volitional control is such that numbers will not increase beyond the established standard of living. He taught that the growth of productive power would continue in advance of the growth of pop-

[17] Cardozo, *Notes,* 26-27.
[18] *Ib.,* 28.
[19] Senior, *Two Lectures on Population,* 35, 36.
[20] Chalmers, *Political Economy,* 172-173.
[21] Cardozo, *Notes,* 36.

ulation, and that, since population follows in the lead of production, there could never be the misery from overnumbers which the theory of Malthus contemplated. He denied Ricardo's no-rent concept, and taught that differences in the productive power of the soil may serve as a measure of rent but never as a cause. He says that the margin is price-determined, that rent enters into the cost of production. In agreement with Malthus, he argued that rent as a product of industry must be an addition to national wealth. He recognized that diminishing returns is applicable to land under static conditions, but he reasoned that improvements through inventions and new methods of cultivation when used in agriculture, become a part of the soil. Because improvements are blended with the soil, the inventive powers of producers will be as efficacious in agriculture as in the field of manufactures. The next chapter will be devoted to George Tucker, who also opposed Ricardian rent; but who, we shall find, founded his argument upon a new and more advanced basis than we have thus far discovered in this study.

CHAPTER V

GEORGE TUCKER

GEORGE TUCKER (1775-1861) of Virginia should be ranked among the strongest American economists prior to the Civil War. Economists have not forgotten him; they never knew him. A few specialists in statistics remember his work in that field, but the students of economic thought make no mention of his theoretical writings. He was too far in advance of contemporary thought to be appreciated; and his works were out of print long before they could have been justly appraised. I shall present the chief facts on his life and writings, study some of his fundamental principles, and present in detail his reasoning on the problem which interested him most—the rent problem.

He was born in Bermuda and died in Virginia. He was inspired by his uncle, Judge St. George Tucker, to attend William and Mary College, where he was graduated at the age of twenty-two. Tucker was admitted to the bar, and practiced at Lynchburg until he entered Congress in 1819, where he served for six years. He then accepted a professorship of moral philosophy and political economy in the University of Virginia where he remained from 1825 to 1845.[1] His early writings cover a wide range of subjects.[2]

[1] Palgrave, *Dict.*, III, 568; *Nat. Encyc. of Amer. Biog.*, VII, 521.

[2] He wrote on slavery, on subjects of taste, and a novel on the Valley of Shenandoah, *The Life of Thomas Jefferson*, a four volume history of the United States, *Essays Moral and Philosophical*. His principal works on economics are: *Law of Wages, Profits and Rent Investigated*, (Phila., 1837); *Theory of Money and Banks Investigated*, (Boston,

Tucker was a scholarly man who labored for the cause of science and a statesman whose power as a debater in Congress was widely recognized. His searching work on statistics and his American History of four volumes demonstrate strong ability in analysis and method. His pleasing style was supported by a careful organization of facts. The motive of his activity was that public opinion might give to right thinking the form of law.

While in Congress, Tucker was in harmony with President Madison's wish for centralization in Congressional legislation. He was an influential member of the committee to consider and to favor that cardinal act of the administration, the United States Bank Act of 1816. The purpose of his chief theoretical work, *Wages, Profits, and Rent* (1837) was to show the general inapplicability of Ricardian economics and to treat constructively the problems of wages, profits, and rent.

What was his estimate of Ricardo? Almost a century ago, his estimate of David Ricardo was the same as that held by many leading thinkers of to-day. "He [Tucker speaking of himself] has long been of opinion that Mr. Ricardo, though possessing merit of a very high order as a writer on political economy, and entitled to all his reputation for a thorough knowledge of the subjects of money and finance, is mistaken in his elementary principles of the science; that the origin and progress of rents admits of a more simple and natural explanation than he has given; that his theory of wages is inconsistent with itself, and that of profits contradicted by the whole history of capital in the civilized world." [3]

1839); *Progress of the United States in Population and Wealth in Fifty Years,* (N. Y., 1843); *Correspondence with Alexander H. Everett on Political Economy,* (1845); *Banks or no Banks,* (N. Y., 1857); *Political Economy for the People,* (Phila., 1859).

[3] Tucker, *Wages, Profits, and Rent,* Pref., iv.

The theory of value was his starting point in his attack upon Ricardo. Some portions of his writings on this subject read like pages from the recent psychological economists. "Value," he said, "in its largest sense, means the feeling with which we regard whatever can render us benefit or afford us gratification. In this sense, it is an emotion of our minds comprehending all that can impart pleasure to our senses, our tastes, or desires; as health, talents, friendship, reputation, land, money, and goods. It varies according to the endless diversities of objects, and of human tastes or opinions, and it is susceptible to all degrees of intensity, from a simple wish to the most passionate desire." [4]

Epitomizing his introductory chapter, we find that self-love seeking gratification is the motive for exchanges. [5] Differences in individual estimates cause us to give objects for those whose "real or imaginary properties" are preferable. The fact of exchange does not indicate the value that either party sets on either commodity, "since each might have been willing to give more for that he received, or take less for that he transferred." The case is different in market price, where the mutual efforts of competitors settle down on uniform terms. His thought is that individuals, in buying and selling, through bargaining come to readjust their valuations until their estimates are made to conform to a common standard, the market price.

Then, in a market, each commodity is evaluated in terms of some other, "that is to say, neither commodity can be estimated without estimating both." He says in substance that the products of human labor, according to the principle of self-interest, frequently will exchange in proportion to the amount of labor expended

[4] *Ib.*, 1-2. [5] See pages 1-13.

on their production. "This has been called the natural price of this class of commodities." But the market price varies from the natural price according to the law of supply and demand. At this point, his ideas of the variation of the subjective forces on the demand side are indeed modern, and are indicative of his philosophical training.

As for that class of commodities produced wholly or partly by nature, he finds their value to be determined "by the pleasure they confer" and the "insufficiency of their supply." "Of the same character are the finer products of art, as the pictures and statues of celebrated masters, secrets in manufactures, and patented inventions." These are sometimes called monopoly values.

Value furthermore varies with distance from the market. The cost of transportation must be deducted from market prices. This explains why gold and silver, so well suited for transportation, are more uniform in value throughout the world than are more bulky or perishable goods. Different place-values "give rise to an active internal commerce." Good roads and canals that lessen expenses of transportation conduce to a greater uniformity of place-values as well as to public prosperity and happiness.

As measures of value, he treats of the variability of labor, corn, and the precious metals. He adds significantly, "Value being an emotion of the mind, and not always exhibiting the same outward signs, in proportion to its strength, is incapable of exact measurement." Approximations are necessary, and, with proper caution and diligence, are attainable.

He thus adhered to the individualistic or subjective concept of value. Consistent with the concept of subjective value, he thought that it is not necessary for a

commodity to have real utility in order that we attach value to it; it suffices if it has imaginary properties capable of rendering gratification. The value we attach to a commodity depends upon its utility (real or imaginary) and upon the strength of our desires for the anticipated gratification.

His value-concept may be summarized to read: value is subjective, being the importance which the mind attributes to an objective good or service. It varies with the intensity of desire. Goods need not necessarily have utility to be valued; it is enough if we think they have utility. People think more or less alike; therefore, they tend to adjust their valuations to common standards. Exchanges on the market are due to differences in individual valuations. Although he denies the cost of production as a cause of value, yet he would say that competition so works as to cause reproducible commodities to exchange in proportion to their cost.

Consistent with his subjective theory of value, Tucker reasons that the primary force in regulating population is volitional control. He undertakes to demonstrate the effects of volitional control by statistics.

In treating the principle of population, Tucker will be found more conservative than his contemporary countrymen, whose dream of a vast population and of an intensified division of labor over a diversified field of industry would cause a vast augmentation of wealth. This view caused, on the part of many Americans, the most extreme dissent from Malthusianism and a very exaggerated desire for a rapid growth of population.

H. C. Carey follows in the lead of Herbert Spencer in maintaining that the forces destructive of population and preservative of it are such as to bring about and to maintain an equilibrium between the numbers of peo-

ple and the means of their support. This was a biological theory. Tucker's statistical study of population led him to a similar conclusion. "We see by the preceding tables that the natural increase of the population is inversely as its density." [6] Taking the examples of Massachusetts, New York, Virginia, Tennessee, and Ohio, he endeavored to demonstrate in each case that the rule of natural increase acts uniformly, that is, we perceive the falling off in the rate, not only in forty years, but in ten year periods. "What is true of these states, will be found true in the others; and there are not more than two or three cases, out of nearly a hundred, in which the comparison can be made, that the proportion of children, and consequently the rate of increase, is not less at each census than at the census preceding. [7] From these figures he predicted that the population of continental United States would be 80,000,000 [8] in 1900, whereas it was 74,000,000.

This theory was not first announced by Tucker. The English author, M. T. Salder, had conceived the idea, and had published two large volumes in its support seven years prior to Tucker's publication. Salder attempted to prove by statistics that population increases inversely as its density. His work was deficient and did not survive.

Tucker thought that Malthus had over-rated the propensity of man to increase, and that he had underrated the checks to population. In his opinion, popular education, good government, and laws which cherish individual self-respect, are the best means of lessening the number of the poor. [9]

He turns from the teachings of Malthus on popu-

[6] Tucker, *Progress of the U. S. in Population*, 105.
[7] *Ib.*, 105-106. [8] *Ib.*, 106.
[9] Tucker, *Political Economy*, 222.

lation to Ricardo's theory of wages. As a basis for his discussion, I will briefly review Ricardo's theory of distribution. Income is divided into three shares: rent, profits, and wages. The surplus or rent goes to the landlord and the residue is divided between labor and capital. Population tends to out-strip the means of subsistence; therefore—because of an increasing surplus or rent—a share diminishing in proportion to the increase of population and capital is left for division into wages and profits. Wages will not be diminished; therefore, profits must be lowered.

Tucker begins the discussion of wages with the assertion that labor is not a cause of value but a measure of it. Like Ricardo, Tucker overlooked the element of time which vitiates the labor theory either as a cause or as a measure of value. This is the more remarkable in Tucker's case because even Ricardo had made numerous exceptions to his labor-value concept, including a recognition of the time element. Moreover, Malthus had given a valuable criticism on this point; and, only three years prior to Tucker's publication of 1837, John Rae, with a master's hand, had set forth the principle of time-value.

Tucker argues that value depends on scarcity and utility; therefore, labor-cost or any other influence can affect value only by affecting supply. He emphasizes the importance of the law of diminishing returns on the limitation of supply. The modes of industry and the nature of consumption remaining the same, real wages must decline with an increase of population beyond the point of the best adjustment of the factors of production. Because of differences in the apportionment of productive factors "a laborer in the United States can earn a bushel of grain in a day, in England

or France scarcely a peck, and in India, often a quart of rice." [10]

In this connection, he gives a most illuminating discussion on the relation between real wages and the nature of consumption. "Subsistence, it must be recollected, is not a constant quantity, as many who have reasoned on this subject seem to consider it, but is capable of great variation, whereby the same soil is capable of supporting widely different numbers." [11] A given soil of one square mile that would support 80 persons who consume animal food abundantly, will support 120 persons who consume animal food more sparingly, 160 persons who subsist chiefly on grain, and 480 persons who subsist on potatoes. In the first case, one person consumes the product of 8 acres; in the second, 5 1-3 acres; in the third, 4 acres; in the fourth, 1 1-3 acres. [12]

The pressure of increasing numbers on the means of subsistence causes the different classes to adjust their consumption; and population will be increased or checked as determined by this adjustment. [13] Consumption remaining the same, numbers will increase at a rate not greater than the improvements in husbandry. A change to a lower grade of consumption means a diminution in real wages. This tends to take place with an increase of numbers beyond the point of diminishing returns. This tendency may be checked or counterbalanced by improvements in husbandry, or by the introduction of the turnip, drill husbandry, or the potato. [14]

Tucker attacks Ricardo's proposition that wages rise as labor and capital are employed on more inferior soil,

[10] Tucker, *Wages, Profits, and Rent.* 16-21. Quotation, 21.
[11] *Ib.*, 21.
[12] *Ib.*, 22-23.
[13] *Ib.*, 23.
[14] *Ib.*, 24.

or that the natural price of labor has a tendency to rise because of a rise in the price of corn. Ricardo states that wages must rise in order to support the same numbers in the same degree of comfort.[15] In justice to Ricardo, it should be noted that he meant money-wages rather than real wages. Tucker, however, assumes Ricardo's statement to refer to real wages; and, upon this assumption, he makes the following statement: "It will not be difficult to show that this theory is at once contradicted by the facts and inconsistent with itself."[16]

Tucker teaches that a rise of raw produce means a fall in natural wages, because the only intelligible idea of a rise in exchange value is that the same commodity will purchase more labor. He holds to the quantity-theory of money, and claims that more money, or better substitutes for it, relative to the need for money, will cause a rise in prices and money-wages, although their relative purchasing power would be unaffected.

"The very process which Mr. Ricardo assumes to take place to raise the price of raw produce supposes a fall in the price[17] of labor."[18] Ricardo assumes that the surplus goes as rent; that there is a common rate for both wages and profits which is determined on the most unfavorable soil; and that it is the product brought forth under these most unfavorable conditions that fixes the price of raw produce. This means that, as population grows, rents will increase while natural wages must fall. Tucker says that the very fact of this lower soil coming into cultivation must mean a previous fall in the price of labor or capital, or both. "Raw produce does not rise because inferior soils are cultivated, but

[15] *Ib.*, 32-34.
[16] *Ib.*, 34.
[17] He does not adhere in this statement to the money-definition of price.
[18] Tucker, *Wages, Profits, and Rent*, 35.

they are cultivated because raw produce has risen; and the effect of their cultivation is to lessen or to arrest the rise rather than to produce it." [19] After illustrating the point, he said that Ricardo's theory is "the same thing as saying that the fall of labor causes the rise of labor." [20]

Tucker says, "Mr. Ricardo has perhaps been betrayed into a theory so inconsistent and unintelligible by assuming the wages of the laborer to be a constant quantity, or rather the amount of raw produce necessary for the maintenance of himself and family." [21] But, continues Tucker, an increase of population will result in a cheaper subsistence whereby the same soil will feed more people. "The human stomach must be filled; but it makes a great difference whether it be filled with beef, or bread, or potatoes." [22]

Despite the accuracy of Tucker's observation, his reply is incomplete in that he overlooks Ricardo's point that the price of labor must be high enough to enable the laborers, one with another, to subsist and perpetuate their race, without either increase or diminution, from which it follows that an increase of rent tends to diminish profits rather than wages. [23] An additional criticism was therefore needed by Tucker to make his case; namely, that profits would tend to disappear and the consequent discouragement of capital would take the very foundation from under both wages and rent. This would occur should a standard of living be maintained, as Ricardo claims, and should population continue to increase. Diminishing profits are truly disheartening; but the resulting no-profit stage, to which Ricardo's

[19] *Ib.*, 35-36.
[20] *Ib.*, 37.
[21] *Ib.*, 37.
[22] *Ib.*, 38.
[23] Ricardo, *Political Economy*, Ch. V.

premises and reasoning naturally lead, would arrest the resort to inferior soils. Too low a rate of profit encourages the final consumption of capital.

On the question of slave labor, much to the credit of a Virginian of his day or much to the credit of an American, North or South, he, without prejudice, weighs the arguments on both sides and comes to the conclusion that the system of slavery "cannot exist in the most advanced stages of society." Speaking of the South, he said, "As soon as those states are supplied with as many as can work their lands to advantage, the emancipation of slaves, occasioning but a small loss to any, and proving a positive gain to some, it will be impossible to prevent it." [24]

On the concept of capital and of profits resulting therefrom, Tucker presents a suggestive though confused discussion. He taught that capital results from saving. He conceived capital as a productive agent such as land and tools, but he shifted to the idea of capital as value in the discussion of profits as a rate per cent.

His definition reads, "Capital is that portion of useful products which has been saved out of the former profits of labor or land." This implies an advance over the Classical teaching that capital is a result of labor, in that it allows for land rents to be converted into capital. He continues, "It thus arises from the excess of production beyond consumption, and consists of machines, tools, provisions, manufactures of all kinds, and money—of every material product, in short, that has exchangeable value." [25] He goes on to say that, "Land itself must be regarded only as a species of capital . . . and the profit it yields in the form of rent, will have a proportionate effect on the price, so that

[24] Tucker, *Wages, Profits, and Rent*, 49, and his *Political Economy*, 89.
[25] Tucker, *Wages, Profits, and Rent*, 51.

as the ordinary profits of capital fall, the price of land will rise. . . . If the profits of capital are five per cent, land will sell for twenty years' purchase, . . . etc." [26]

At times, he speaks of land and capital as different; yet he finds that all of these agents obey the law of diminishing returns, and that they are governed by the same economic principles.

He teaches that land rent and profits obey the same laws. In a static view, there is a monopolistic [27] limitation to the scarce uses of capital at a given time precisely as in the case of land. At this point, his reasoning clearly foreshadows the recent concept of quasi-rents.

The demand for capital arises out of the cost and the length of time required to produce it as compared with the temporary needs for it. Demand is made for capital because of the numerous uses for it, because of its productive power, and because of its limited supply due to its being created only by encountering the natural desires of men for present enjoyment. [28] New developments, such as the building of a railroad [29] or the employment of new lands, make demands for capital.

The supply of capital, he says, is limited by the scarcity of peculiar skill, or where the method of fabrication is a secret, or where the law precludes competition, as in the case of exclusive rights secured by inventions. The natural desire for present consumption, and the fact that only a few can meet the large costs required to produce some forms of capital, are likewise conditions that limit the supply of capital. Because the demand for capital is quick whereas the production

[26] *Ib.*, 71.
[27] "Monopoly" is here used in the sense of scarcity.
[28] Tucker, *Wages, Profits, and Rent,* 51.
[29] *Ib.*, 61-63.

of it is slow, it generates a surplus value precisely as does land or any limited agent. [30]

Rent and profits are the temporary and scarce uses of land and capital that command a price in the market. [31] He maintains that rent is a monopoly price for the scarce uses of land; and, because of these forces which limit the supply of capital, he likewise finds that profits are due to monopoly.

The differential theory, in his judgment, applies uniformly to profits and land-rents. His reasoning is, that capital will first be employed in the most productive uses and that additional capital will find less remunerative employment. [32] This is, of course, a technological concept of capital, for the value-concept forbids such different rates of return to capital.

At this point, the author's treatment of profits becomes confused and inconsistent. He says that capital can always be invested in land, but that such an investment is only a transfer and not a creation of capital; therefore land is a kind of balance wheel to steady the rate of profits. [33] But he says that a resort to inferior soil tends to raise profits because a new and greater demand is made for capital. [34]

Turning now to his criticism of Ricardo on profits, we find the conclusion that, after a certain point is reached in the apportionment of population to natural

[30] *Ib.*, 54.
[31] *Ib.*, 57.
[32] *Ib.*, 59-61. [33] *Ib.*, 71.
[34] *Ib.*, 72. We may criticise Tucker at this point; for, if land under cultivation be the regulator for the level of profits, it must be marginal land, because all the surplus is taken away in the form of rent. Then, if marginal land regulates the level of profits, how can this level go up when the margin goes down by reason of resort to inferior soil? This reasoning makes the supply of capital on lower margins have the unlike effects of both lowering and raising profits. This contradiction, however, is not quite so glaring when we consider that the resort to inferior soils is a dynamic concept, and that the differential concept is static, referring to lands or different land-qualities under cultivation at the same time.

resources, a diminishing portion of raw produce will go to labor. He advances the view that capital has the advantage of labor, that wages will be lowered relative to profits because the laborer must live and will abate in his wages rather than go without food. Ricardo, on the contrary, had argued that wages will rise with an increase of the price of corn whereas profits will decrease. Tucker says that the competing uses for capital will tend to keep profits from diminishing. Referring to Ricardo's theory, he says, "Corn can only be said to rise when it will exchange for more labour. . . . In the same degree that corn rises is labour depreciated. If the same quantity of corn could purchase no more labour than before, in what sense could it be said to rise? Corn must be compared with something else, when we speak of its change of value, and it is only with labour . . . that it can be compared." [35]

One finds at least three unlike ideas in Tucker's treatment of profits: the differential idea, the temporary monopoly idea, and the cost-of-production idea. In keeping with the literature of his time, the word "profits" expressed no definite concept to Tucker. Profits was a blanket term covering that portion of income not included under wages or land-rent. Following his discussion of profits, he turns to the problem of land-rent.

Land-rent to him was a contractual payment made by one person to another for the use of land. It presupposes private property in land; therefore rent could not exist in the early stages of society. Rent depends on fertility and on economic location. The value of the products of land must exceed their cost of production in order that land may yield a rent. "Fertility is then an essential prerequisite, and different qualities of

[35] Tucker, *Wages, Profits, and Rent*, 68-69.

soil, under similar circumstances of situation, will yield rent in proportion to their respective degrees of productiveness." [37]

After thus, like Malthus, emphasizing fertility rather than the niggardliness of nature as the cause of rent, he proceeds to remark, as does Malthus, on "the relative scarcity of fertile soil as necessary to the existence of rent." If land were as abundant as air or light, it would be a free good. But land will have a value in a new country before it begins to yield rent, because provident individuals anticipate a future earning capacity due to the natural increase of mankind, for the same reason that value is attached to young animals or to a share in a promising enterprise which is a present charge. [38] The number of years' rent to determine the price of land is ascertained by the rate of profits. [39]

There is an elastic limit to the supply of land; consequently, after the land is occupied, an increase of numbers will cause either a diminution in consumption or an increase of production through intensive cultivation. Improvements in husbandry that enable a given expenditure of labor to produce more, will tend to maintain a high exchange value of labor in terms of raw produce. "But though wages will not fall, rents will rise, inasmuch as the same soil is made to yield a greater return." [40] Tucker here refers to commodity-rent and commodity-wages, and argues that rents rise faster than wages.

He thinks, however, that in only a few rare cases do improvements keep pace with the progress of population, and that in general the increase of population com-

[37] Tucker, *Wages, Profits, and Rent*, 94.
[38] *Ib.*, 94-95.
[39] *Ib.*, 95.
[40] *Ib.*, 98.

pels diminished consumption, and the substitution of coarser for dearer commodities.[41] The value of wages falls, usually, in comparison with the value of raw produce, "in consequence of the increased competition of the labourers; and, as the same amount of raw produce will progressively command more and more labour in the market, rents will rise in proportion."[42] It is clear that, to Tucker, a rise in rent means a rise in proportion to labor.

Reasoning evidently on the entrepreneur cost basis,[43] he said:

> By reason of the fall in the price of labour, soils of inferior fertility may then repay the cost of cultivation, which they would not have done at the previous rate of wages. The addition to the amount of raw produce thus made, retards the further decrease of wages. . . . But if the soil was of uniform fertility, then, when it was all taken into cultivation, the means of subsistence for further accession of numbers could be furnished only by one of the two first mentioned modes, that is, either by a more productive husbandry, or by cheaper modes of subsistence. The first of these expedients tends to keep down the price of raw produce compared with labour; the last to raise it; but both of them contribute to increased rents, because both enable the landlord to command more labour from the produce of the same land.[44]

He concludes that differences in qualities of soils have no agency in producing rent, that rent arises "from the greater amount of labour which the products of the same portion of soil can command, in consequence of

[41] *Ib.*
[42] *Ib.*, 98-99.
[43] It would indeed be difficult to determine whether Tucker's work should be classed as a theory of prosperity or as a theory of distribution. There is a constant shift back and forth between money and commodity-rent and money and commodity-wages. He reasons with these unlike terms in the same sentence oftentimes as if they were one. His book begins with a brilliant exposition of subjective value; but often he shifts value on to a labor-cost basis, then from a labor-cost theory of value on to a subsistence basis. He varies back and forth from labor as a cause to labor as a measure of value. Again he enters into the realm of entrepreneur of money-outlay costs without detecting the change. Yet to Tucker a cost is a cost, and a like conclusion must follow.
[44] Tucker, *Wages, Profits, and Rent*, 99.

the increase of population," that the greater the supply of fertile soil the greater is the amount of rent. [45]

This reasoning is clearly in accord with the thesis of Malthus' *Essay,* which is that abundance and the growth of population relative to that abundance is the explanation of the progress of rent. [46] Indeed a comparison of the views of Malthus on rent with those of Tucker, makes it clear that Tucker was profoundly influenced by the writings of Malthus. Malthus lays down three causes of rent, [47] and emphasizes the first two quite to the exclusion of the third. It is significant that Ricardo bases his rent doctrine on the third cause given by Malthus and practically excludes the first two, while Tucker bases his doctrine on the first two and usually excludes the third.

"It thus appears," said Tucker, "that cultivated land yields a rent from two causes, and only two: first, from the capacity of the earth to return a greater amount of raw produce than is expended in its cultivation; and secondly, from the increasing demand for this excess by the increase of population, so that more labour will be given in exchange for raw produce than it has cost to produce it." [48]

While Malthus regards differences in fertility of land as significant, Tucker, more logically, regards variations in the soil as of no theoretical importance. But Malthus' main thesis is Tucker's main thesis: the capacity of the earth to produce a surplus though at a diminishing

[45] *Ib.,* 100-101.

[46] Malthus' *Nature and Progress of Rent,* 19, 23.

[47] "First, and mainly, that quality of the earth, by which it can be made to yield a greater portion of the necessaries of life than is required for the maintenance of the persons employed on the land. Secondly, that quality peculiar to the necessaries of life of being able to create their own demand, or to raise up a number of demanders in proportion to the quantity of necessaries produced. And thirdly, the comparative scarcity of the most fertile land. *Ib.,* 15.

[48] Tucker, *Wages, Profits, and Rent.*

rate and the growth of population relative to this surplus, produce the twofold effect of lowering wages and of forcing up the value of this surplus. Both center attention upon the relationship between the value of labor and the value of raw produce. Tucker's law of substitution that enables the land to feed more people is a variation of Malthus' bounty-of-nature argument. Exceptions in both writers are numerous; but, despite these, both saw the value of raw produce to be regulated by the law of supply and demand rather than by cost. Both emphasized labor as a measure rather than as a cause of value.

In contradiction to Ricardo's teaching, Tucker was of the opinion that whatever increases the quantity of raw produce lowers the price of it and raises rent. Whether it be fertility, favorable seasons, improved modes of husbandry, manures, or more skillful modes of cultivation, the effect must be a tendency to lower the price of raw produce. But it would not follow from this that rents must decline. Lowering of price does not diminish rent, because the elasticity of consumption, even with the same population, will not allow prices to fall to the extent that raw produce would rise in amount. The supply of precious metals was, he states, increased ten-fold after the discovery of America, but the value of a given unit of the precious metals was lowered not over one-third.[49] Tucker's idea of the elasticity of consumption has quite superseded Ricardo's dictum that man's desires are limited by the narrow capacity of the human stomach.

To summarize here some of the chief arguments so far reviewed may prove helpful. He has taught that value is subjective or individualistic. Though it cannot

[49] *Ib.*, 102-103.

be measured or expressed by objective goods, yet it can be approximately expressed in relation to goods in the open market where, through mutual competition, the estimates of individuals tend to conform to common standards. The fundamental law determining value is that of supply and demand. But commodities, other than those produced by nature, find their supply-limitation determined by their labor-cost; therefore value tends to conform to, but is not the result of, labor-cost. Self-love, seeking gratification, leads to demand and supply through which price is fixed.

Applying this reasoning to the population-rent problem, he finds that on the demand side are to be considered: (a) the law of population, (b) the elasticity of demands, and (c) the forces of distribution. These considerations are disposed of as follows: the rate of the increase of population varies inversely as its density; demands accommodate themselves to the supply, increasing with the augmentation of wealth and diminishing with the diminution of wealth; the forces of distribution operate to the advantage of the landlord who enjoys a monopoly return, and give advantage to the capitalist over the laborer who in case of pressure must abate in wages or starve.

On the supply side are to be considered: (a) forces limiting the supply of products, and (b) the kind of product. Forces limiting product are: climate, fertility, kind of seed, skill, method, improvements, secret methods, desire for present over future consumption which limits the supply of present capital, and the law of diminishing returns. The kind of product involves such considerations as whether beef or potatoes are to be produced.

Rent is considered in two ways: as a payment by

one person to another, and as a commodity return. It arises out of the bountifulness of nature, together with an augmenting population. Increased production tends to lower the price of raw produce, but, because of the elasticity of demands, prices do not fall to the extent that production is augmented; therefore an increase of commodity-rents means an increase of total value-rents. Exchange-value is measured by labor-cost; therefore a rise in value-rents is equivalent to a fall in real wages.

We will now turn to Tucker's criticism of Ricardo's theory of rent. After stating Ricardo's theory, he offered three objections to it: first, the diversity of soil has no agency in creating rent; second, the rise of raw produce is the cause rather than the consequence of the resort to inferior soils; third, a rise in raw produce means a fall in real wages.[50] The third objection has already been discussed.

On the first, he reasons that the result of an increase of raw produce is a multiplication of laborers, and growing numbers produce competition that lowers wages relative to raw produce. It follows that, through time, raw produce comes to have greater purchasing power in general. Natural forces tend to augment the landlord's purchasing power irrespective of a difference in soil.

In his second objection to Ricardo (the rise of raw

[50] *Ib.*, 108. Not only does Tucker's argument overlook the growing demand of labor in this course of development, but also he makes raw produce both the supply and the demand. That is to say, while raw produce is itself the supply, it is also that which determines the number of people who are to demand it. Man's free agency is subordinated to natural forces. But, says he, supply and demand produce value, and value in turn causes more production. This makes causes beget causes, and converts man into a kind of irrational being whose course is determined by the fertility of the soil as truly as is the course of a leaf determined by the direction of the stream upon which the forces of nature have caused it to fall.

This same conclusion must follow the reasoning of Malthus, and in a slightly different way, the powers of nature are steering Ricardo's helpless economic man to the minimum-of-subsistence margin. The laws of natural science and the doctrine of the Physiocrats had a hold too firm upon the scientific mind of that time to permit the laws of moral philosophy to hold their true place in the development of science.

produce is the cause rather than the consequence of the resort to inferior soils), Tucker said, "It is justly remarked by Ricardo that 'corn is not high because a rent is paid, but a rent is paid because corn is high'; but it is equally true that corn is high, not as he supposes, because 'more labour is employed in the production of the last portion obtained,' but more labour is thus employed because corn is high." [51]

His reasons for the rise of raw produce are two: the increased demand, and the greater amount of labor for which produce will exchange. But the second reason is precisely what Tucker elsewhere calls the high price itself.

"Without doubt," said Tucker, " . . . successive resorts to inferior soils, or outlays of fresh capital on old lands keep pace with the rise of raw produce; they ordinarily afford a measure of the progress of rent, . . . but they are no more the cause of its rise, than the weights on one scale cause the gravity of the body in the opposite scale, though they may correctly inform us of its amount." [52]

In this regard, his thought so strictly conforms to Senior's encyclopedic article, to which Tucker makes reference, [53] that there is reason to suspect an influence by Senior over him. Senior wrote, "And yet it is clear that if we suppose the existence of a populous and opulent district of great but uniform fertility, giving a large return to a given expenditure of capital, but incapable of giving any return whatever on a less expenditure, or any greater return on a larger expenditure, such a district would afford a high rent though every rood of

[51] *Ib.*, 111-112.
[52] Tucker, *Ib.*, 133.
[53] *Ib.*, 122.

land and every portion of the capital applied to it would be equally productive." [54]

As for diminishing returns, we have seen that Ricardo's concept could serve only for static conditions. Malthus had the concept of historical diminishing returns, or of a process of transition from one static state of returns to society as a whole to another such static state. But to him the dynamics of different factors were unequal, and the consequent disproportionality meant a minimum of subsistence. Tucker's concept is Malthus' concept improved. Tucker makes far more allowance for improvements in husbandry, and emphasized over and over the idea of consumption being modified or changed to meet the new circumstances.

Credit is due Tucker for being the first, apparently, to make use of the law of limited returns. [55] It is difficult to pick out a single quotation from Tucker either to prove that he adequately presented this law, or to give a clear idea of his conception. The idea runs throughout the work and at no place finds precise statement or definition. Tucker often assumes fundamental principles as commonplace, and fails to give them formal expression.

At one place, he said:

> There are millions of acres, on our large rivers, and in the western country, which at a small additional expense, would produce their maximum, or so near it that no further outlay of capital could increase their product ten per cent. But whatever might be the effect of these expedients, it is clear that they have their limits, and that, if the population went on increasing, the time must come when there could be no further conversion of other lands into arable, and when the arts of husbandry would admit of no material improvement. In that

[54] *Ib.*, 122.

[55] Professor Patten overlooks Tucker when he considers that his (Patten's) *Premises of Political Economy* (1885) contained the first presentation of this law.

case, the further demand of increasing numbers could be met only by an alteration either in the quantity or quality of an individual's subsistence.[56] . . . It may be remarked, by the way, that the political economists of the Ricardo school seem to assume that upon all lands successive portions of capital can be expended so as, in a diminishing ratio, to increase the amount of its produce. But this is true only with the inferior soils, and not even with them to the extent supposed.[57]

The reason he makes a partial exception for inferior soils is that such soils, as other parts of the book indicate, give a larger proportional return to manure and other soil-improvements, and that the duration of the period until it reaches the point of maximum returns is longer.

Professor Patten gives a clear expression of the idea:

All writers, in discussing the law of diminishing productiveness of the soil, have accepted, without dispute, the assumption that the return for labor from a given tract of land could be continually increased by the use of more labor, the point controverted having been whether or not the additional labor contained a greater or less proportional return than the previous labor. Both parties seem to have overlooked the third alternative, that the proportional return might increase up to a point beyond which no additional return could be obtained by any amount of labor. If this were true, we would have a law of limited returns as contrasted with a law of diminishing returns.[58]

This means that, beyond a certain point, additional numbers cannot be provided for at all. Both the cultivation of poorer soils and the higher prices of food are accounted for by the law of limited as well as by that of diminishing returns. That superior lands cannot supply the market has been thought to demonstrate the fact of a limit to the productive power of land.[59]

Tucker and later writers in discussing this concept,

[56] Tucker, *Wages, Profits, and Rent*, 116-117.
[57] *Ib.*, 117, note.
[58] Patten, *Premises of Political Economy*, 152. [59] *Ib.*, 152-153.

have in mind commodity-returns only. This fact, in my judgment, renders the concept one impossible of any practical application, because production would cease when cost came to equal value-returns. This point, as both reason and experience show, must be reached long before an actual physical limit to returns is attained. Cultivation would be arrested even when population becomes most dense, because of the principle of proportionality. Cultivation will cease at the point where cost equals value-return and not at the point of maximum physical return.

This concept is necessarily static. It could be true only under given conditions. Under a condition, for instance, where horses are used for plowing, one team of horses can get the maximum return from a given plow within a given time; under another condition, where steam is used, one engine could get a larger maximum return from this plow. At each time, the maximum return is produced; but the returns are different at the two times to the extent that the engine is swifter than the team. The productive capacity or supply of any factor is always limited by the conditions and combination of forces of which it is a part. The same reasoning applies to different stages of agriculture, and to different stages of progress.

This concept must also be considered in relation to the prevailing habits of consumption, since consumption determines the nature of demands, and demands, in turn, determine what commodities must be produced. The cost outlay required to reach limited returns would vary with the classes of commodities that are to be produced. Land cultivated to a point of limited returns for superior food (e.g., beef) would support few as compared with the same tract used for less costly food (e.g., potatoes).

A dynamic theory of consumption teaches that, as population advances, consumption requires a greater variety and a superior quality of goods. Now, in a more advanced state of civilization, the earth could support more people to the extent that consumption is varied, since a greater variety of margins with limited returns could be attained. But, to the extent that superior quality is demanded, the earth could support fewer people because no limited-returns margin could yield as much food of a superior as of an inferior quality. Turning now to Tucker's concept of consumption, which, as population grows more dense, tends toward a less variety and a cheaper, coarser quality of food, we find that opposite reasoning would apply.

It is debatable under which of these forms of consumption the earth could support the greater number of people. But certainly the greatest number could be supported under a form of consumption which combines the qualities of greatest variety, thus making available various grades of land, and the cheapest quality which would enable each variety of land to yield the maximum nutriment.

The application of this principle to all classes of productive agents can be easily made, but is beyond our present task. The nature of consumption, which includes the standard of tastes must reckon with the kind as well as the variety of consumable goods; then the nature of consumption is but one end of the stick of which the coordination of productive factors to supply that consumption is the other.

Though recent writers have made much of this law of limited returns, is there anything in it except a modified statement of diminishing returns? It simply places a limit at which, if ever reached, diminishing returns

would become stationary returns. Everything the concept could embrace is embodied in the law of proportionality, and the ultimate limit of returns is, as I have indicated, at the point of maximum value-returns and not at the point of maximum physical returns. To adhere to the idea of physically limited returns is to shift from an economic to a physical basis of reasoning.

In this chapter, we have found that George Tucker was a scholar and statesman whose thought upon economic questions was in many respects far in advance of his time. His subjective theory of value is essentially the same as that held by leading thinkers of the modern psychological school. Regarding value as an individual estimate, he reasoned that the market price of a good need not necessarily correspond with the value which either purchaser or seller attaches to it. But he reasoned that, in the process of purchases and sales, the traders come to think in common terms and to adjust their thought more or less to a common basis. In keeping with the subjective theory of value, he finds that population is regulated by volitional control, and that volitional control so works that numbers increase inversely as the density of population. He classifies land as capital at times, and teaches that land-rent and profits obey the same laws. He regards rent as a surplus, and brings out the concept of quasi-rents. In every case, he regards rent as well as profits a deduction from the law of diminishing returns; he looks upon variations in the soil as of no theoretical importance. Malthus and Tucker used the same bases in their rent problem. But in fairness to Tucker it may be said that he advanced the problem much farther than where Malthus had left it. I should classify Tucker as one of the ablest American

economists under review if not one of the ablest thinkers on the subject that this country has ever produced. The next chapter, devoted to Henry C. Carey, will point out specifically and in detail the differences in the prevailing points of view in the United States and in England.

CHAPTER VI

HENRY CHARLES CAREY

THE environment, early career, and personal characteristics of Carey (1793-1879) decidedly influenced his thought. It is necessary, therefore, briefly to review these influences. Carey's voluminous writings began in 1835, and continued to appear throughout a period of unprecedented industrial development. The population increased 32.7 per cent from 1830 to 1840, and 35.9 per cent during the next decade. The wealth *per capita* in 1860 was more than double that of 1840. The growth of factories and industries, of inventions and skill, compose an amazing chapter in material civilization. During the two decades after 1830, the railroad mileage grew from 29 to 9,021 miles. Philadelphia, the home of Carey and most of his followers, was the railroad center. Though spread over a vast area, the population of the country maintained political continuity while it was incorporating vast bodies of immigrants. Under a new and liberal form of government, a growth of national feeling was manifest. The extension of transportation facilities was uniting diverse interests into common interests, was bringing the farm into touch with the manufacturing cities, and was emphasizing that unity of national interests which formed so clear a basis for the "principle of association," which was the fundamental tenet of the Carey School.

Good prices and home markets gave encouragement to agriculture, while the growth of skill, capital, and superior equipment made possible the utilization of the

more fertile lowlands where resistance to cultivation was greatest. Observation of these facts led Carey to deny the Ricardian order of cultivation. The land was owned for the most part by the great middle class in the form of average-sized farms. In America, the title *landlord* was no mark of distinction. There was no distinct city class as opposed to an agricultural class. Americans had inherited no association of ideas from the Middle Ages which would lead to an artificial differentiation between natural agents and other forms of wealth; and no inherited fixity of relation existed between the landlord and the serf. Land, like other forms of capital, was subject to frequent purchase and sale. Frontier lands were almost free; consequently the value of a cultivated farm was hardly more than the cost of its improvement. These facts caused Carey to believe that the value of land was determined by its cost of reproduction. The law of diminishing returns in agriculture, though never denied, had found no serious consideration at the hands of any American economist previous to Carey. Very naturally, the majority of American economists spoke of land as capital, and the Carey School wrote much in defense of this idea.

In the midst of dynamic progression, the population was versatile and optimistic. N. W. Senior said of this country: "They have afforded a field in which the powers of population have been allowed to exhaust their energy; but though exerted to their utmost they have not equalled the progress of subsistence. Whole colonies of the first settlers perished from absolute want; their successors struggled long against hardship and privation; but every increase of their numbers seems to have been accompanied or preceded by increased means of support."[1] Alfred Marshall says:

[1] Senior, N. W., *Two Lectures on Population*, 49.

"The Englishman Mill bursts into unwonted enthusiasm when speaking of the pleasure of wandering alone in beautiful scenery; and many American writers give fervid descriptions of the growing richness of human life as the backwoodsman finds neighbours settling around him, as the backwoods settlement develops into a village, the village into a town, and the town into a vast city." [2]

There was not a time between 1830 and 1860 when an increase of population would not have been desirable. We are not surprised to learn that Malthusianism was unpopular, and that a growth of numbers was regarded as an indication of prosperity. With such conditions, it was natural that progress should be considered the normal law of economic life; and that a dynamic law of increasing returns should be developed by our economists rather than a law of diminishing returns. National growth together with a vigorous optimism tended to reverse the tenets of the Maltho-Ricardian School. Carey's optimistic philosophy was born under favorable auspices. This was a period of partial reaction in England; a juncture when the deductions from a few assumed premises seemed hardly adjustable to the conditions of actual life.

From his ninth year, Carey was associated with his father in the business of publishing and selling books. The firm "Carey and Lea," of which H. C. Carey became a partner in 1814, was the leading publishing house in America. He read most of the works sent in for publication and republication. In this way, he secured his education. His assiduous labors and good memory soon made him the best equipped economist in the United States. [3]

[2] Marshall, A., *Principles,* 321 n.
[3] Elder, Wm., *Memoir of H. C. Carey,* 32. Livermore, C. H., *Polit. Sci.*

"Thirteen octavo volumes and three thousand pages of pamphlets remain as the fruit of his activity, besides an amount of matter, supposed to be twice as great, contributed by him to the newspaper press. Of his more important works, there are translations in French, Italian, Portuguese, German, Swedish, Russian, Magyar, and Japanese." [4] Practically the whole of his philosophy, however, may be found in his *Principles of Social Science.*

At the age of forty-two, there occurred two important events in his history: (1) he retired from business with a considerable fortune, and (2) he published his famous *Essay on the Rate of Wages.* [5] The immediate cause of this essay was his reading the lectures by Senior on *The Cost of Obtaining Money* and *The Rate of Wages.* With Senior, he held to the wage-fund doctrine; but, contrary to Senior, he emphasized "real wages" rather than "money-wages."

It is interesting to note that, in his first essay, he advocated many of the classical theories. He held to the wage-fund doctrine, and advocated free trade; yet there are embodied in this essay many of the teachings which compose his later system of thought.

Carey was unsympathetic with an opponent. His iterations were vigorous. In Elder's *Memoir* we find statements indicating that his economy took something of the tone and temper of national prejudice. "His father, Mathew Carey, was an Irish patriot, a political exile from the land of his birth. Something hereditary may be detected running, with much of the pristine force of blood, through the life and character of the

Qr., V, 553. Thompson, R. E., Article "Carey" in Stoddard's *Amer. sup. to Ency. Brit.*

[4] Dunbar, C. F., article "Carey" in Palgrave's *Dictionary.*

[5] Elder, Wm., *Memoir*, 37.
Livermore, C. H., *op. cit.*, 554.

son." [6] "He sometimes clinched his deliverances with expletives and epithets something out of fashion in society." [7] An English traveler speaking of Mr. Carey to T. E. Leslie said, "He is a man of plain speech, and swears like a bargeman whenever Mill's name is mentioned." [8] Professor A. L. Perry states that "he [Carey] hated England with all the fervor of a Celt" and further that "a temperament and a prejudice like this is hardly favorable to processes of logical reasoning." [9] Leslie shares this opinion in some degree. [10]

But these comments should not be taken too seriously. It is difficult to believe that a man with Carey's superior intellect should personally hate all Englishmen. He was much indebted to English thinkers, among others Spencer and Senior; and his mention of some Englishmen is most complimentary. Desire to find the truth seems to be his one motive. Let an unfavorable doctrine come in his way, however, and he remonstrated with a Spartan-like vigor. That he was positive in his convictions, dogmatic, wanting in judicial temperament, over-confident, and too much one-sided on many questions, cannot be denied. He was ultra optimistic; and, to all the griefs and trials of man, he was blinded by his beautiful principle of association. He was honest, profoundly in earnest, and labored with zeal for the betterment of man.

Men of this type compel reactions. They are admired or disliked, as the case may be, always in the superlative. R. E. Thompson thought that the philosophy presented by Carey "vindicates the ways of God to man," [11] and

[6] Elder, Wm., *Memoir*, 31.
[7] *Ib.*, 34.
[8] Leslie, T. E., *Political Economy in the United States, Fortnightly Review*, 1880, XXXIV, 502, n. 2.
[9] Perry, A. L., *Political Economy*, 82, 83.
[10] Leslie, T. E., *op. cit.*, 501.
[11] *Social Science and National Economy*, 30.

Dr. Elder thought that Carey's *Past, Present, and Future* marked "an era in the history of political economy, from which it may count its A. U. C., its Hegira, or its Declaration of Independence." [12] "On the other hand," says Livermore, "the college professors arose from the perusal of Wayland's *Political Economy* and jeered at the unbeliever. Were Ricardo, Malthus, McCulloch, and Mill blind leaders of the blind? If they were, was it out of New Jersey that a prophet should arise with the sovereign balsam of feeble eyesight? [Carey then lived in New Jersey.] And with one accord, they all cried the louder: 'Great is *laissez faire* of the Ricardians.'"

Mr. Livermore's statement is very apt, for Carey has had a small following among college professors. But in newspapers, politics, and campaign literature, possibly few men for fully a half century were quoted more on the tariff. His following among publicists has been large. He was an adviser to President Lincoln and to Secretary Chase. [13]

Carey's extremely optimistic temperament was one reason for his opposition to Malthus and Ricardo. Differences of opinion often find their origin in differences of temperament. The scientist, as such, reaches conclusions only through impersonal reasoning. Man, as such, too often has his conclusions biased by his own temperament. The difficulty is that the scientist and the man are inseparable. There being two sides to most questions, there is opportunity for the human element to load the evidence in favor of this contention or that. Ricardo was pessimistic; Carey was optimistic. Ricardo loaded the evidence from the English conditions of 1815;

[12] *Memoir*, 26.
[13] Livermore, *op. cit.*, 571.

Carey loaded the evidence from the American conditions of 1848.[14]

The purpose of this chapter is to present briefly Carey's theory of rent and to contrast his views with those of Ricardo especially as to the law of diminishing returns. We shall find that, contrary to the general opinion, Carey never denied the theory of diminishing returns in the sense that Ricardo taught it.

In order to follow Carey's criticism of Ricardian rent, I shall briefly review Carey's arguments on population. Carey overlooked the social phenomena that followed the Second Hundred Years' War between England and France. He maintained that the origin of the theory of population that Ricardo had in mind, Malthusianism, was to be found in the commercial policy of England.[15] Following in the lead of the American economists,[16] Rae,[17] Wayland,[18] Vethake,[19] Cardozo,[20] and Phillips,[21] and of Senior[22] in England, Mr. Carey argues at length to prove that Malthus' geometrical and arithmetrical ratios are impossible.[23] God in his all-goodness, reasons Carey, provides for man. He admits that men perish. This, however, is not due to the niggardliness of nature, but to the insufficiency of men.[24]

Chemistry teaches, he argues, that a dense population

[14] Franklin, *A Select Collection of Scarce and Valuable Economical Tracts,* 215. Smith, Adam, *Wealth of Nations,* I, 72. Everett, A. H., *New Ideas on Population,* Chaps. 2-3. Senior, N. W., *Two Lectures on Population,* 49. Marshall, A., *Principles,* 321-322, note.

[15] Carey, *Principles of Social Science,* I, 464.

[16] It would be better to say, in keeping with American thought.

[17] Rae, John, *The Sociological Theory of Capital* (N. Y., 1905), 392.

[18] Wayland, F., *Elements of Political Economy* (Boston, 1859), 302.

[19] Vethake, Henry, *The Principles of Political Economy* (Philadelphia, 1838), 116.

[20] Cardozo, J. N., *Notes on Political Economy* (Charleston, S. C., 1826), 35-36.

[21] Phillips, Willard, *A Manual of Political Economy* (Boston, 1828), 139.

[22] Senior, N. W., *Two Lectures on Population* (London, 1831), Lec. II, 46-52.

[23] *Social Science,* III, 267, and 349-350.

[24] *Ib.,* 350.

is necessary for the well-being of man.[25] Space will not permit a full presentation of his arguments under this head of his discussion. Because of the increase in population, the growth of association, capital, and skill, which result, will cause the land to yield more food; and by reason of a law of substitution which accompanies the advancement of civilization, man comes to have less need for the products of the land. Man becomes more and more dependent on plant life. Plants, on their side, must have carbonic acid gas, which is furnished them by the breath of animals. A dense population will supply the needed animal breath, and animals, a discordant element in his principle of association, will gradually disappear. Thus, man producing the carbonic acid gas and plants the oxygen, give us an example of that "perfect" economic harmony which runs through his writings.

Carey's last and most important argument is that man's cerebral and reproductive functions become antagonistic through development. Population is self-regulative. The power to maintain individual life and the power to propagate the species must vary inversely if over-population be avoided. If a race continues to exist, the forces destructive of it and the forces preservative of it must tend toward equilibrium.[26]

In this argument, we find Carey's ultimate check to over-population. To read only his first three arguments, one concludes that Carey had in mind no conceivable limit to the propagation of man. Economic historians have, for the most part, overlooked his claim that population is self-regulative. Professor Roscher, for example, maintained that Carey had in mind no

[25] *Ib.*, 319-320. Cf. *ib.*, II, 269; III, 315, 318, 325, 327.
[26] *Op. cit.*, III, 46.

check to over-population and cited Carey's *Past, Present, and Future* and *Principles of Social Science* to substantiate his contention.[27] It is true that when, in 1848, he wrote his *Past, Present, and Future,* he had not developed the argument, and frankly stated that "the time may arrive when the world will be so fully occupied that there will not be even standing room."[28] But between 1848 and 1858-59, the date when he brought out his *Principles of Social Science,* appeared Herbert Spencer's famous article on population[29] (1852), which supplied Mr. Carey with an ultimate check to over-population, thus rounding out his theory.[30] Carey's argument is that there is no minimum-of-subsistence margin, nor any over-population problem.[31]

Having mentioned his arguments on population, as well as the industrial and personal conditions that influenced them, I shall follow his approach to the rent problem a little farther by briefly presenting certain concepts that are of the substance of the problem itself.

Carey, as we shall see, regards land as a form of capital, and makes rent virtually synonymous with interest. Rent and interest find their origin in the conflict, so to say, between the power of nature's control over man and the power of man's control over nature. In proportion to other shares of the distribuendum, rent and interest are high when nature's control is stronger, and low when man's control is stronger.

Concepts having to do with man's control over nature

[27] Roscher, *Principles of Political Economy* (Chicago, 1882), sec. cclxii, note 1.

[28] *Past, Present, and Future* (Philadelphia, 1848), 77.

[29] *A Theory of Population, deduced from the General Law of Animal Fertility,* in *Westminster Review,* April, 1852.

[30] *Principles of Social Science,* chap. 46.

[31] Professor Haney says that Carey preceded Spencer in this theory: *History of Economic Thought* (N. Y., 1911), 247. Professor R. E. Thompson also makes this mistake: Stoddard's *Encycl., Amer. supplement to Encycl. Brit.,* I, 722.

are wealth, utility, and capital. "Wealth consists in the power to command the always gratuitous services of nature." [32] "Wealth grows with the growth of man's power over nature. The more that growth, the more feeble becomes nature's resistance, and the greater is the tendency toward acceleration of progress in the further growth of wealth." [33] "The utility of things is the measure of man's power over nature." [34] "Capital is the instrument by means of which that mastery is acquired." [35] In what does capital consist? Carey says, "At one moment in the form of food; at another, in that of physical and mental force; and, at a third, in that of bows, arrows, canoes, ships, lands, houses, furnaces, and mills." [36] He speaks of "further accumulation of capital in the form of that higher intelligence." [37] Capital, then, is both objective and subjective. Carey is obscure on this point. He considers interest a payment for the use of capital. Land is capital, so it would seem that a payment for the use of land would be interest. Rent, however, is spoken of as a payment for the use of land; so rent and interest would be the same—interest on land would be rent. Man also is capital.

[32] *Principles of Social Science,* 186. In his Miscellaneous Works, the article "Wealth: Of What Does It Consist?" he defines the term thus: "Wealth consists of the power to command the services of the always gratuitous forces of nature" (5-6). Further, "Of all tests of the growth of wealth the most certain is that which is found in the comparative power of a people for the production and consumption of iron" (*Ib.,* 10-11). His environment in Philadelpia possibly had something to do with his exalted opinion of the iron industry and his advocacy of protection. The poet Bryant (for more than half a century editor of the *New York Evening Post*) thought Carey's opposition to orthodox economy was due to mercenary motives (Carey's Miscellaneous Works; article, "Financial Crises: Their Causes and Effects"; Bryant quoted 15-16). T. E. Leslie thought Carey's economy as much a product of Pennsylvania as was its iron and coal (*Fortnightly Review,* 1880, XXXIV, 503). Professor Perry was of the same opinion as Leslie (*Political Economy,* 18th ed., 83).

[33] *Miscellaneous Works.* Article, "Wealth: Of What Does It Consist?" 11.

[34] *Principles of Social Science,* I, 179.

[35] *Ib.,* III, 50.

[36] *Ib.*

[37] *Ib.*

Why, then, would not wages be interest? Wages and interest, however, are regulated by different laws. They move up or down in opposite directions. These remarks are justified by statements throughout his works and by criticisms of him on his confusion of terminology.

Concepts having to do with nature's control over man are value and cost of reproduction. "Value is the measure of the resistance to be overcome in obtaining those commodities or things required for our purposes —of the power of nature over man." [38] In the same chapter, we are told that the idea of value "is simply our estimate of the resistance to be overcome, before we can enter upon the possession of the thing desired." [39] This chapter contains expressions of which the following are characteristic: "What are the things to which he attaches the idea of value?" "He attaches no value to the light." "How much is the value he attaches to the chair upon which he sits?" etc., etc.

One of the definitions quoted above is subjective and the other objective. The relative values of commodities are determined by their labor-cost of reproduction. "In exchanging, the most obvious mode is to give labor for labor." [40] For short, value : value :: labor-cost of reproduction : labor-cost of reproduction. [41]

His greatest confusion comes from attributing value to man. Of the utility of man he says, "The greater that utility, the higher is his own value, and the less that of the things he needs. The cost of reproduction steadily declining, he himself as steadily rises, every

[38] *Principles of Social Science,* I, 158.

[39] *Ib.,* 148.

[40] *Ib.,* 151.

[41] Marshall makes Carey's value a money-cost-of-reproduction concept. Carey himself, on the value of a good, spoke of the human effort required for its reproduction (Cf. Marshall, *op. cit.,* 401; Carey, *Principles of Social Science,* I, 151). Marshall says normal cost of reproduction and normal cost of production are convertible terms (*Ib.,* 401).

reduction in the value of existing capital being so much added to the value of the man." [42] "The value of man, like that of all other commodities and things, is measured by the cost of reproduction, and not by that of production." [43]

These statements are not in harmony with value as nature's control over man. They indicate that value is man's power over nature. How does this differ from wealth, man's power over nature? How does the idea that "a greater utility in man means a higher value in man" harmonize with "the two [value and utility] [44] thus move in opposite directions, and are always found existing in the inverse ratio of each other"? [45] Inconsistencies such as these confuse the argument. Yet the general relationship seems to be that value is nature's power over man and that it is limited by cost of reproduction. Wealth is man's power over nature, utility is the measure of this power, and capital consists in the means or instruments which give this power. [46]

Since rent is a payment for the use of land, it is proportionately high or low as the value of the land is high or low. This leads us to the rent problem.

On rent, [47] he presents two arguments: (a) Land is capital; rents grow proportionately less; (b) The natural order of cultivation is from poor land to rich.

First. Land is capital. The clay through which the farmer guides his plow is subject to exactly the same law as when it has passed through the potter's hands

[42] *Principles of Social Science*, III, 111.
[43] *Ib.*, 130.
[44] Parenthesis mine.
[45] *Principles of Social Science*, I, 179.
[46] Roscher, *Principles of Political Economy*, I, sec. 5, note 4.
[47] *Principles of Social Science*, I, v. Speaking of his work of 1837, Carey said of himself, "He had already satisfied himself, that the theory presented for consideration by Mr. Ricardo, not being universally true, had no claim to be so considered; but it was not until ten years later that he was led to remark the fact that it was universally false."

and has been converted into china and earthenware. It is a universal law that governs matter. [48]

"If we can show that the land heretofore appropriated is not only not worth as much labor as it has cost to produce it in its present condition, but that it could not be reproduced by the labor that its present value would purchase, it would be obvious to the reader that its whole value is due to that which has been applied to its improvement." [49] Again, "There is not, throughout the United States, a county, township, town, or city, that would sell for cost; or one whose rents are equal to the interest upon the labor and capital expended." [50] Quotations and arguments from his works might extend over pages, all to the effect that capital in land differs in no respect from that invested in machines. In fact, President Walker remarks that, "The trouble with Mr. Carey's argument is its super-abundance of proof." [51]

In other words, before appropriation, land is a free good, like air and water. Its value is due to the labor employed in its appropriation and improvement. [52] "Improvements" is broad enough to include roads, canals, churches, and the like. [53] Land being capital, rent is only a form of interest. As progress, invention, and skill advance, the cost of reproduction declines. Therefore rents proportionately decline; proportionately, of course, to the products of the land. [54]

[48] *Principles of Social Science*, I, 164.
[49] *Principles of Political Economy*, I, 102.
[50] *Past, Present, and Future*, 60; almost the same wording in *Principles of Social Science*, I, 168.
[51] Walker, F. A., *Land and its Rent*, 77.
[52] *Principles of Political Economy*, I, 129, 130.
[53] *Principles of Social Science*, I, 168.
[54] Doubtless J. S. Mill and F. A. Walker are the strongest, at least among the strongest, critics of Carey's cost-of-reproduction concept. Mill omits cost of reproduction in his criticism of the point. Take this from his argument, and Carey himself would not recognize it. J. S. Mill, *Principles of Political Economy* (Ashley ed., London and New York, 1909), 430-432. See MacLeod, *The History of Economics, London* (1896), 590-592, on self-contradiction of Mill on rent. Walker makes the stronger criticism (*Land and Its Rent*, 75-88). In a later work

Second. The natural order of cultivation is from poor to rich soils, from the dry, sandy soil of the hillside to the rich lands of the valley. Since this argument is aimed at Ricardo, we will give it as follows: (1) Inconsistencies of Ricardo. (2) Why Ricardian rent is generally accepted. (3) It depends on a single supposition. (4) Statement of Carey's argument. (5) Deduction: rent proportionately declines.

After an introduction replete with irony as to Ricardo's "great discovery," he turns to the college professors and compares them to the followers of Mohamet in regard to the Koran. Their insolvable task is to determine what it is they are required to believe. Those who follow Ricardo are economists *par excellence*: anything short of absolute faith in him is heresy, worthy of excommunication, contemptible. The professor "having studied carefully the works of the most eminent of the recent writers on the subject, and having found no two of them to agree, he turns, in despair, to Ricardo himself, and there he finds, in the celebrated chapter on rent, contradictions that cannot be reconciled, and a series of complications such as never before, as we believe, was found in the same number of lines. The more he studies, the more he is puzzled, and the less difficulty does he find in accounting for the variety of doctrines taught by men who profess to belong to the same school, and who all agree, if in little else, in regarding the new theory of rent as the great discovery of the age." [55]

this author advocates cost of reproduction. He speaks of it as "beyond the reach of discussion," (*International Bimetallism,* 25-29). Professor J. W. Jenks expressed the opinion that Carey's theory of a constant decline in value, including agricultural products, is that he had in his mind's eye the United States where, as a result of free and abundant fertile lands, agricultural produce had still a low cost of production (Jenks, *Henry C. Carey as Nationalökonom,* 30, 31).

[55] *Past, Present, and Future,* 17-18 (quotation from p. 18).

Why, then, is Ricardo's theory generally accepted?

At first sight, it looks, however, to be exceedingly simple. Rent is said to be paid for land of the first quality, yielding one hundred quarters in return to a given quantity of labor, when it becomes necessary, with the increase of population, to cultivate land of the second quality, capable of yielding but ninety quarters in return to the same quantity of labor; and the amount of rent then paid for No. 1 is equal to the difference between their respective products. No proposition could be calculated to command more universal assent. Every man who hears it sees around him land that pays rent. He sees that that which yields forty bushels to the acre pays more rent than that which yields but thirty, and that the difference is nearly equal to the difference of product. He becomes at once a disciple of Mr. Ricardo, admitting that the reason prices are paid for the use of land is that soils are different in their qualities, when he would, at the same moment, regard it as in the highest degree absurd if any one were to undertake to prove that prices are paid for oxen because one ox is heavier than another; that rents are paid for houses because some will accommodate twenty persons and others only ten; or that all ships command freights because some ships differ from others in their capacity.[56]

Ricardo's whole theory is based upon a single supposition. After reducing the theory to six brief statements, he (Carey) says, "It will be perceived that the whole system is based upon the assertion of the existence of a single fact, viz., that in the commencement of cultivation, when population is small, and land consequently abundant, the soils capable of yielding the largest return to any given quantity of labor alone are cultivated. That fact exists or it does not. If it has no existence, the system falls to the ground. That it does not exist; that it never has existed in any country whatsoever; and that it is contrary to the nature of things that it should have existed, or can exist, we propose now to show."[57]

[56] *Ib.*, 18, 19.
[57] *Ib.*, 23.

So much for Ricardo's single supposition and what Carey proposes to show. What is Carey's argument on the point? He reverses the Ricardian order of cultivation. In the first settlement of a new country, Ricardo thinks that No. 1, the 40-bushels-to-the-acre tract, would be first occupied. When population multiplies to the extent that it is necessary to cultivate No. 2, then rent begins on No. 1—the rent being the difference between the two, or 10; and so on.

In the first settlement of a new country, Carey thinks that the poorest tract, say No. 5, will first be occupied; and, with the growth of population and wealth, 4, 3, 2, and 1 will successively come into cultivation. Carey's reasons are that the richer lands offer greater resistance than half-civilized men, or needy colonists, or the few new settlers in a virgin land with small capital and no organization, can overcome. The most fertile lands are covered with dense forests; among the most general difficulties are swamps or marshes, bogs, and malaria. Through the growth of population, capital, and association, such power over nature is acquired as will make possible the utilization of the most fertile soils.[58]

From this, it follows that constantly increasing returns result, and "there is a steady diminution in the proportion of the population required for producing the means of subsistence, and as steadily an increase in the proportion that may apply themselves to producing the other comforts, conveniences, and luxuries of life."[59]

Continuing, we find that, "Rent is paid for the improvements which labor has accomplished for, or on, land, and which constitute items of wealth. Wealth tends to augment with population, and the power of

[58] *Ib.*, chap. I; also *Principles of Social Science*, I, chaps. 4, 5.
[59] *Past, Present, and Future*, 25.

accumulating further wealth increases with constantly accelerating pace as new soils are brought into cultivation, each yielding in succession a larger return to labor. Rent tends, therefore, to increase in amount with the growth of wealth and population," [60] etc. But, while there is an increase in the amount of rent, it must be remembered that rent or the price charged for the use of land, like prices of all commodities and things, is but compensation for the results of past labor. As cost of production becomes less, prices are lowered. Therefore, though total rents increase, rent as a share of the produce of land decreases proportionately. [61]

So much for Carey's arguments on rent and the relation of rent to kindred problems. I shall conclude with a comparison of these writers, hoping thereby that Carey's attitude toward Ricardo may be better understood.

Ricardo lived in pessimistic England at the close of the Second Hundred Years' War with France; Carey lived in optimistic America during her golden age of prosperity after 1837. The first wrote in the England of 1817; the second wrote in the America of 1848. Ricardo was pessimistic—things would have been better if they had not been so bad; Carey was optimistic —things will be better because nature is so good. The first accounted for misery through the niggardliness of nature; the second accounted for misery through the fault of man. Ricardo was a free-trader; Carey was a protectionist. The Malthusian law of population and the Ricardian theory of rent rest on one and the same hypothesis: the limited supply and diminishing productiveness of land in its relation to human fecundity with

[60] *Ib.*, 62.
[61] *Principles of Social Science,* I, 164.

undiminishing power. Carey's doctrine of population and theory of rent are based on the principle of an increasing supply of land in its relation to human fecundity—that fecundity diminishing with the development of man. With Ricardo, labor accounts for the value of most man-made goods; with Carey, labor accounts for the value of land and other goods. Ricardo's order of cultivation was from rich land to poor; Carey's order of cultivation was from poor land to rich; Ricardo's rent concept is static: though he taught historical diminishing returns, his formula can serve only for measuring static or unalterable conditions. Carey's rent concept is dynamic: he looks upon society as progressive, multiplying in inventions and skill and increasing its returns as it grows. Ricardo regarded land as a distinct factor of production; Carey regarded land as capital. With Ricardo, rent is a differential surplus above a no-rent margin; with Carey, rent is interest on capital in the form of land. The first thought that improvements caused a decrease in total rent; the second thought that improvements caused an increase in total rent. Ricardo taught that rent increased while labor received less and less on a declining margin; Carey taught that rent proportionately declined while labor received proportionately more and more on a rising margin. To one, increased numbers meant diminishing returns and rising rents at the expense of profits and wages; to the other, increased numbers meant increasing returns and rising wages at the expense of rents and profits. Both were successful business men. Neither was a college man. Either ranked as the strongest contemporary economist of his nation. After all, the fundamental, the one point between Carey and Ricardo, in this connection, is diminishing returns. It is true that Carey said "no"

when Ricardo said "yes"; Carey considered his doctrine the direct opposite of that taught by Ricardo. Differences in the order of cultivation present no fundamental distinction in this question. The philosophy of Ricardian rent refers to lands under cultivation at the same time. Recent studies justify Carey's contention in many instances as to the historic order of cultivation. Grant the point, yet Ricardo's law of rent is untouched. Not historic orders, but lands under cultivation at the same time, present the basis for a differential rent-doctrine.

That Carey said "no" when Ricardo said "yes," is taken by critics to be the backward and forward looking faces of the same proposition. This, however, is but another instance of the common fallacy of mistaking different things for the same thing. This I will show through a consideration of the essence of the whole controversy—diminishing returns.

Since Carey was not specific on the point, he leaves us to interpret his fundamental, possibly his subconscious philosophy of this question. In my judgment, there are three, and only three, possible interpretations:

1. There is a declining demand for commodities as society approaches a more perfect association, and meanwhile there are increasing returns from land. In other words, while the supply of commodities is constantly increasing, our needs are constantly decreasing.

2. Another interpretation—and that the general one—is that Carey denied outright the law of diminishing returns as Ricardo used it.

3. Carey passed by diminishing returns in agriculture, and reasoned with a land-supply concept in mind.

Regarding the first of these, Carey, after arguing for a tendency to substitute vegetable for animal foods, and for increasing powers of augmenting supplies of neces-

sities as man approaches a more perfect state of association, said, "The better his clothing, the less is the waste of his body, and the less his need for food." [62] Further, [63] "Look, therefore, where we may, we find, throughout nature, a constant tendency towards the perfect adaptation of the earth to the wants of a growing population —each and every increase in the power of association and combination being accompanied by diminution in the quantity of raw material required for the maintenance of human life, and increase in that which may be obtained in return to any given amount of labor." [64]

Few men have been criticized more severely than Carey, yet no one has been so cruel as to accuse him of being serious on this point. This does not enter in as a part of the body and substance of his philosophy. It must be considered alone—isolated from the body it is presumed to serve; it is a kind of philosophical comet blazing up for the moment, contrary alike to law, order, and common sense. Why did Carey compel the farmers to move to more fertile soil, if the soil they were on was constantly increasing its returns and the needs were constantly diminishing? The fact is that Carey, at this point of the discussion, has in mind a primitive economy. [65] This is no ultimate doctrine. That animals, well housed and protected from freezing weather, rains, and snow, require a less amount of food to preserve them in the same state of health and vigor, is beyond discussion. That warm clothing, sanitation, and comfortable housing for people mean a less waste of body, and a somewhat less absolute need for food, is a mat-

[62] *Principles of Social Science*, III, 318.
[63] *Ib.*, III, 319. Also *ib.*, chaps. 46, 47, bear on the point.
[64] Mr. Carey should have remembered that clothing and general comforts make a demand on the land as much as food does.
[65] I take it that needs vary in relation to the standard of living: in a primitive economy needs are absolute essentials; in an advanced economy they correspond to the character of desires.

ter of common knowledge. But at this point the analogy between men and beasts breaks. What the desires of horses and cattle were a thousand years ago, they are to-day. Man's desires, however, are progressive; they mount with every additional opportunity for gratification. Desires are the motive force of economic activity, and it follows that dynamic progression—the centre of Carey's philosophy—is based upon desires for more and better goods. To accuse him, then, of advocating the point beyond a primitive economy, or at least beyond the point where man has secured conveniences to conserve his animal heat, is to accuse him of contradiction so serious as to wreck his whole philosophy.

Upon the second possible interpretation, much less is to be said. Ricardo limited land, labor, and capital to definite units, and gave them a mathematical expression. Not to limit the land factor is, I submit, to dodge or pass over the diminishing-returns issue in the Ricardian sense. This Carey did. There is not a sentence in his hundreds of pages on rent and population which claims that constant expenditures on a limited specific area bring an ever increasing return. His was a different theme—from poor land to fertile, which I shall term a land-supply concept. His reasoning was upon an entirely different basis. He did not preach increasing returns on a limited area of land.[66] If a farm on the hill-side showed constantly increasing returns, it would soon be more productive than the low lands. If the farmer's first expenditure, or first dose, on the limited area, yields 10, his second 12, his third 15, on up to 100

[66] Sherwood, S., *Tendencies in American Economic Thought.* Professor Sherwood argues to the effect that Carey did deny Ricardian diminishing returns, and, so far as I know, gives the best available argument for that contention. Professor Sherwood, however, makes no distinction between diminishing returns on a limited area under static conditions and diminishing returns relative to the whole industry over a long period of time (20-23). My contention is that the two are essentially different.

and beyond, what possible excuse could he have for moving to the low lands? There is no evidence that Carey regarded the process of moving as a particular source of large fortunes.

While Ricardo based diminishing returns upon historic conditions, his formula or his mathematical expression of it was static, and could serve only as a measure of static conditions. He assumed conditions in a given state of advancement. At the same time, he recognized the Malthusian tendency of population to outstrip the means of subsistence. Thus he yoked a static with a dynamic concept. Consequently, he over-emphasized the principle of resistance in agricultural industry, to the neglect of inventions in the industry as a whole. His prophecies as to resulting conditions were, consequently, extremely pessimistic. They have been falsified both in England and America. It was this that raised the ire of optimistic Carey. The conclusion is that the first two of these possible interpretations were not entertained by Carey. He never thought that, as civilization took a higher form and became more complex, our needs and demand for goods would diminish. Neither did he believe that the application of more and more units of labor and capital on a limited area would show constantly increasing returns.

Yet he preached increasing returns. This brings us to the third, and to what I believe to be the correct, interpretation of his idea of returns from land. It must not be forgotten that his thought was dynamic, that his environment was one of growth and change, and that, in conformity, his economy was dynamic. To him, land was not a fixed factor in production as it was with Ricardo. The limited-area concept was absent from his reasoning. Diminishing returns to him were quite dif-

ferent from a mere denial of diminishing returns in the static sense in which Ricardo conceived them. The problem to him was a dynamic one, over a long period of time. He conceived returns in the light of growing skill, and of industrial and technical developments, that multiply with the growth of capital and population. Increasing power results in the better utilization of land, in the harnessing of new lands, in the substitution of richer, better lands for old lands.

Growing power to increase the land-supply or real productive power of the earth was, I submit, the central idea in Carey's reasoning on returns. This was no denial of Ricardian diminishing returns. Their problems were entirely different—static and dynamic returns are different species.

Carey's writings are on the border line, if indeed they do not suggest what I believe to be a truer statement of proportionality than has been given. Recent thought, however, seems to owe more to Hobson, [67] Clark, [68] and Cannan, [69] because of their extension of the application of the rent-doctrine, than to older writings on the subject. To avoid reading trains of thought into Carey which belong more to recent writers, I shall assume full responsibility for the following remarks, which, it is hoped, will present a truer statement of the difference between Ricardo and Carey.

Land, like labor, money, or tools, is a productive factor. The supply of productive factors is measured by their yield and not by their bulk. The number of laborers does not tell us the supply or productive power

[67] Hobson, J. A., *The Law of the Three Rents*, in *Quar. Jr. of Economics*, 1891, V, 263-288.

[68] Clark, J. B., *Distribution as Determined by a Law of Rent*, in *Quar. Jr. of Eco.*, 1891, V, 289-318; *A Universal Law of Economic Variation*, in *Quar. Jr. of Eco.*, 1894, VIII, 261, ff.

[69] Cannan, E., *Origin of the Law of Diminishing Returns*, 1813-15, in *Economic Journal*, 1892, II, 53-69.

of labor. We must know of their skill, strength, and organization. The number of dollars does not tell us the supply of money; the value and rate of turnover of these dollars must be known. With the land-supply, the case is not different. The land-supply is the available force or power to do the land-work. The land-supply consists of available or effective utilities and not of potential utilities which may be harnessed in the future, or when new conditions arise. Location, fertility, and intensity of cultivation must be considered, as well as area, when reasoning on the land-supply.

Any productive agent is economically non-existent until its potential utilities become effective utilities.[70] Gold at the bottom of the sea is economically non-existent because it has only potential utility. Gold in a national bank is economically existent; it has effective utility. The effective utility of land is the supply of land; the swamp lands, in the Carey use—all lands, under given industrial conditions, which are beyond man's control, which in no way contribute or can be made to contribute to his needs—are economically non-existent. They are no part of the economic supply of land. No one claims that fur-bearing animals in the wilds of Siberia, beyond the reach of man, compose a part of the supply of furs. Yet their name is legion who affirm that the supply of land is fixed, thus including lands impossible of utilization under existing circumstances. The greatest enemy of some of their ideas is other of their ideas. Canals, like the Panama, that will make possible the drainage and cultivation of lands

[70] Veblen, T., *On the Nature of Capital,* in *Quar. Jr. of Eco.,* August, 1908, 523. Commons, J. R., says, "The gifts of nature become capital as soon as they are utilized by man. Before they are utilized, they have no economic significance and are, therefore, neither capital nor land, in the economic use of those terms." *The Distribution of Wealth,* 137-138.

whose utility previously had not been dreamed of; railroads extending quick, cheap transportation into the interior, thus converting waste lands into corn and wheat fields; extensive systems of irrigation that banish nature's lottery of seasons and rains—these are increasing the effective utilities, the land-supply, extensively. Subsoil plowing—working down into the earth, building upon the soil, any means of more intensive cultivation —any means of compelling a limited area to contribute more to the needs of man than before, is to convert potential into effective utilities—to increase the economic land-supply. This does not mean that potential utilities are without influence on supply: let the demand become stronger, and force is applied to the harnessing of potential utilities. It does mean that potential utilities are not a part of the supply. Not to distinguish between "amount of land" and land-supply is a source of confusion.[71] More intensive and more extensive utilization result in precisely the same thing—more effective utilities, a greater land-supply. For the economist to reason on the acre-basis rather than on an effective-utility-basis, is to shift from an economic to a physical point of view. An acre of land is an acre of land, be it on the top of Mt. McKinley or on Wall Street. What of their productivity, their value, their capitalization? These are economic questions. The acre is a mere measure, an area-test, of a physical entity—that is all.

In old or new lands, potential utilities resist being harnessed; some such utilities are further than others below the margin of utilization. This is a matter of degree, not of kind. Whether extensive or intensive, such utilities resist being harnessed. This may be

[71] Fetter, F. A., *The Principles of Economics* (2d ed.), N. Y., 1910, 155-158.

termed "the principle of resistance." This brings us to a further conclusion of great significance, heretofore unnoticed, namely, that it is impossible to tie down any one agent in our reasoning on proportionality, and to treat it as a limited, or definitely fixed, factor. These truths, differentiation between effective and potential utilities in determining supply and the principle of resistance, are applicable to all productive agents. They are illustrated by the discussions on the quantity theory of money. Their essence is embodied in such expressions as "The nimble sixpence does the work of the slow shilling." [72] "The money force, or supply of money, is . . . composed of two factors—the amount of money and the rapidity of circulation." [73] Resistance is here implied, of course; else one coin would be a national supply. The reasoning applies to horse, laborer, machine, and all productive agents, in the same way and for the same reasons that it applies to land and money.

If it be realized that a product is, under complex industry, a resultant of numerous indirect agents, [74] and that all indirect agents are alike subject to the "principle of resistance," it follows that "diminishing returns" is simply a law of proportionality, with no fixed factors; and that all factors are adjusted, or the attempt is to adjust them, so that the maximum efficiency of production will result. Such adjustment, equilibrium, or proportionality is an industrial ideal, and all efforts to attain it are, and must be, based upon the general principle of resistance.

In America, where land was so rich and abundant,

[72] Walker, F. A., *Political Economy* (Adv. Course, 3d ed.), N. Y., 1888, 131.

[73] *Ib.*, 131.

[74] See example of the day laborer's coat. Adam Smith, *op. cit.*, I, 13.

economic advancement was striving toward that economic goal—a proportionality of factors. In a new country, every step approaching that proportionality is attended with larger returns than the preceding step. Such environment produces subtle and inexplicable forces that bend action, and force thought into new channels. "American economists from the time of Carey have naturally thought of change and progress as normal, and have protested against the assumption of fixity of customs, in social institutions, in the land-supply, in the labor-force, and in the industrial processes." [75] Now that the supply of productive agents is elastic, and that resistance must be overcome in securing more effective utilities from these agents, and that a product is the resultant of numerous indirect agents, it follows that the proper proportioning of these agents must be based on the principle of resistance or diminishing returns.

The entrepreneur's problem is largely one of proportionality. He must so apportion productive factors as to secure the best adjustment of means and ends. He must meet the demands of the market. This is a problem of change and progress, of living force and movement; therefore the dynamical problem of substitution is ever confronting him. There is the double problem in proportionality of apportioning the productive factors and of apportioning the whole establishment to the extent of the market. This, should we take the space to argue it, would lead to the conclusion that, when the point of greatest net return is reached, more money would not be invested in the plant. The securing and maintaining proportionality is inseparably connected with the principle of substitution. In fact, substitution is the

[75] Fetter, F. A., *Publications of the American Economic Association*, 3d series, XI, No. 1, 135.

means to that end. Now that diminishing returns is common to all productive agents, the proper apportioning of these factors in productive enterprise must be based on this general principle of resistance; therefore the principle of substitution must work in conformity with diminishing returns. [76]

In the cooperation of productive factors, the ideal is to secure such an adjustment as will yield the greatest net return. More of a single factor than the ideal proportion demands, is unnecessary cost. Less of a single factor than a proper apportionment demands, indicates unnecessary cost on the part of the other factors in the cooperation. Disproportionality means diminishing returns; substitutions or readjustments that bring about or approach true proportionality, will augment returns. Whether long factors will be substituted for short, or the reverse, is a question partly of anticipated value-return and partly of the comparative productive monopoly held by particular factors. For these reasons, long factors will not be increased. This would disobey the law of demand which tends to equalize marginal utilities, and would be unwise investment. In a productive establishment, land, labor, and capital are coordinated; and each employs the others, so to say. Moreover, various competing uses are demanding each of these factors. A short factor cannot bid strongly enough to cause an increase of factors which are already too strong in the same establishment. If it could, it must be stronger than any competing use, but this would involve the absurdity that all competing uses are subject to still greater diminishing returns than itself. In a purely agricultural society where land, labor, and capital

[76] See Marshall on the relationship of the principle of substitution to diminishing returns, *Principles*, 355-356, 435.

are devoted almost exclusively to agriculture, the range of substitution is comparatively limited. Alternate demands are few. Land in a particular location gradually becomes the short factor as labor and capital are increased. The demand for adjustment increases with the growth of disproportionality. Substitution must be made; but, in the very nature of the case, the long factors—labor and capital—cannot be adjusted to the short factor, land. Land must be adjusted to the other two. It is very evident that substitution is made because of diminishing returns on a limited area. Should we assume long factors to be adjusted to a short factor, it is still true that the purpose and act of substitution is based on diminishing returns. Movement from poor land to rich is substitution based on the land-supply concept. Such substitution confirms diminishing returns on a limited area. [77]

We conclude that the supply of the productive powers of factors or their effective utilities is elastic, that resistance must be overcome in the conversion of potential into effective utilities, and that the problem of disproportionality arises out of differences in the degree of resistance to be overcome in apportioning factors, or in increasing the supply of short factors. Substitution by avoiding greatest resistance seeks the easiest means of increasing supply. To advocate the law of substitution in production, except in cases of indifference, is logically to affirm diminishing returns. The substitution of new lands for old, or the use of new lands rather

[77] In fact, this law of substitution simple pervades Carey's whole economy. Power over nature grows with the substitution of improved instrumentalities; from the use of the pack-saddle to the railroad car; from the canoe to the steamer; from the poorer to the richer soils; from animal to vegetable products; from the vegetable to the mineral kingdom—at every stage substituting the cheap and abundant for the costly and scarce—thus progress is exhibited in the steady advancement from savagism up to the highest attained civilization. (See Dr. William Elder, *Memoir*, 9.) These are of his most common expressions.

than a more intensive utilization of old lands, as population and capital grow, is based on the law of diminishing returns.

To attain superior adjustment of means and ends is, consciously or subconsciously, the ambition of all business concerns. It is the aim of all economies. This being true, the very fact that land was the short factor in the England of 1817 and the long factor in the America of 1848, helps us to account for these different economies.

With the law of substitution in mind, of which Carey made so much, I hope we are ready to state the difference between Ricardo and Carey on returns. In conformity with English conditions and with the thought of Malthus and especially Sir Edward West, we find that Ricardo's concept of diminishing returns, his statement of it, and his mathematical expression of it, were static, and were confined to a limited area.

In conformity with rapidly changing conditions in the United States, and with his own way of thinking, Carey's concept of returns was dynamic. He thought of returns over a long period of time and without limit as to area. Taking this view of the question, only false reasoning could lead him to any other conclusion than that returns from land would increase with the growth of skill and science, of population and wealth.

Static diminishing returns and dynamic increasing returns have little or nothing in common. They are different species. To affirm the one is in no sense to deny the other. [78]

We are brought to the interesting question, Did Carey deny Ricardo's concept? We might answer that he had nothing to say on a static concept of returns rela-

[78] Marshall, *op. cit.*, 165.

tive to a limited area. Seemingly he misunderstood what it was that Ricardo taught. In the absence of a specific statement, however, his teaching, as we believe, would rather confirm than deny the Ricardian concept. If not, why did he think that population would become too dense? This was his opinion in 1848 before he had found a check to over-population. Why did he look for the relief of over-population in the harnessing of new lands? Above all, the law of substitution was a salient feature of his economy. This law was so prominent that Dr. Elder spoke of it as a leading feature of Carey's writings.

In Ricardian usage, land, labor, and capital were the productive factors. The essence of the problem confronting Ricardo was the disproportionality of these factors. Land ("being fixed") grew proportionately shorter with the increase of labor and capital. This is to say, it showed diminishing returns. Of course, returns are reckoned relative to the whole investment, though, in Ricardo's mind, land was the particular source of increasing costs.

Moreover, the problem confronting Carey was one of disproportionality. Briefly, what were his views? Population first settles on the poor land. Capital and labor increase until land becomes the short factor. Meanwhile, increased strength enables them to appropriate a more fertile tract. After a time, this becomes the short factor, and so on until the most fertile tract is reached. Every movement is based on the principle of diminishing returns.

We conclude that the views of these two famous economists were not opposite views of the same thing. Their economics were upon different bases; two different economics from two different premises of fact and view-

point; the one was an outgrowth of industrial and social conditions in the England of 1817; the other was an outgrowth of industrial and social conditions in the America of 1848.[79] Ricardo's diminishing returns and Carey's land-supply concept are both essential to a true law of diminishing returns.

The reason for the common opinion that Carey denied diminishing returns in the Ricardian sense is, I believe, that critics have made the common shift from static conditions on a limited, specific area to dynamic conditions covering the whole industry over a long period of time. Taking the latter, which is an entirely different problem, Carey was right. Looking either backward or forward, to the past or to the future, the whole industry, in the historical sense, shows increasing returns. Other reasons are that only effective utilities compose the land-supply or the supply of any factor. These compose the force, the available power to perform the functions of productive factors. Proportionality is worked out upon this principle, but in all adjustments tending toward proportionality, the law of substitution is assumed; it is the means to that end. This law, in turn, is generally based on diminishing returns. Therefore, having shown at length, that Carey's contention was for substitution for the short factor, land, we have shown that, in reality, he confirms diminishing returns, though he nowhere specifically mentions that law in the sense that Ricardo used it.

It would be merely repetition to present the argument of those who frankly acknowledge Carey as their master and whose writings are no more than expositions of Carey's system in the form of text-books.

E. Peshine Smith was a devoted disciple whose *Manual of Political Economy* (Philadelphia, 1853) is only

[79] Gide and Rist, *Histoire des Doctrines Economiques*, 388-389.

an exposition of Carey's thought in small compass. Other followers of Carey, although they do not fall within the compass of this study in that they did not write on rent, are Charles Nordhoff, Horace Greeley, Ralph Waldo Emerson, Stephen Colwell, and William Elder.

Robert Ellis Thompson's *Social Science and National Economy* (Philadelphia, 1875) is worthy of special mention, not because he added anything to Carey's thought, but because of the wealth of historical evidence which he marshalled in support of Carey's views.

Professor W. D. Wilson, a follower of Carey, teaches that cultivation begins "on the hillsides, or hill tops, where the woods are easily cleared, and where they are free from the dampness and malaria of the lower but more productive soils." [80] He teaches that the value of land is equal to the cost of its reproduction. [81] He classifies land as capital. [82] Likewise on capital, wealth, and the law of diminishing returns, he is in essential agreement with Carey, although he was less optimistic. [83]

The next chapter will be devoted to Francis Bowen, who like Carey was a national economist and gifted writer.

[80] Wilson, W. D., *Political Economy*, 92.
[81] *Ib.*, 92, 93.
[82] *Ib.*, 110.
[83] *Ib.*, 308-321.

CHAPTER VII

FRANCIS BOWEN

FRANCIS BOWEN[1] (1811-1890) was born at Charlestown and died at Cambridge, Massachusetts. He was a pupil in the common schools of Boston, attended Phillips Exeter Academy, and was graduated, the first scholar in his class, at Harvard in 1833. Immediately after his graduation, he became a tutor in Greek, and, soon afterwards, wrote the lives of some prominent statesmen for Spark's *Library of American Biography*. Resigning at Harvard in 1839, he spent two years in travel and study in Europe. While abroad, he met Sismondi and other notable scholars. He returned to Cambridge in 1840, and spent the following twelve years in literary pursuits. He was editor and proprietor of *The North American Review* for eleven years (1843-1854); and, in addition, he edited *The American Almanac and Repository of Useful Knowledge.*

[1] References: (1) *National Encyc. Amer. Biog.*, XI, 452. (2) *Encyc. Britannica*, 11th ed., IV, 342. (3) *Encyc. Americana*, III. (4) Palgrave, *Dict. Pol. Econ.* (by F. W. Taussig), I, 175.

Professor Bowen was the author of a large number of books on a variety of subjects. He wrote on history, politics, education, political polity, philosophy, metaphysics, literature, and religion.

Luigi Cossa (*An Introduction to the Study of Pol. Econ.*, London, 1893) said: "In more recent years the late Professor Bowen of Harvard College proved himself the ablest member of this school [The National and Cosmopolitan School], and wrote a treatise which defended the 'banking principe' and rejected the wage-fund as well as the theory of rent. He further denied the practical value of Malthus' views for America, where the farmer owned his own land and every workman was a capitalist." Professor Taussig said: "His economic writings in the main are in the nature of text-books, stating and illustrating the doctrines of the classical economists. But on the subject of international trade he diverged, and reasoned in favor of the doctrine of protection. He laid stress on the need of national independence, and of aiding young industries; and he made application also of Mill's reasoning as to the possible effects of duties on the play of international demand (Palgrave's *Dictionary*, 1894 ed., 175).

He delivered two courses of lectures on metaphysical and ethical sciences during the years 1848-9 at Lowell Institute. In 1850, he was elected professor of history at Harvard. But he had taken the unpopular side on the Hungarian question in his articles contributed to *The North American Review;* and as, for this reason, the Board of Overseers failed to concur with the corporation, he retained his position only six months. Three years later, however, he was elected Alford Professor of Natural Religion, Moral Philosophy, and Civil Polity, a position which he retained to within a few months of his death.

He was profoundly religious, a staunch defender of the Bible, and an opponent of Darwinism. His religious convictions so pervaded his thought that a strong theological element is made the basis of his system of economic science. A deep devotion to religion colored his every principle and thought.

The decade previous to the Civil War was not prolific of works on economics. The stimulus afforded to our economists by English publicists ceased to be active after Mill's publication in 1848. A furious tariff struggle at an earlier date was the direct cause of numerous works on political economy, but this issue had been settled for two decades. Currency and banking had ceased to be paramount issues. The great sectional question so engaged the attention of the public that considerations primarily economic were reduced to a subordinate rank.

It was in this period (1856) that Bowen's book appeared. Professor Dunbar tells us, however, that the book was compiled by the author's throwing "into connected form a long series of articles and lectures produced by him in the preceding ten years." [2] Recasting

[2] Dunbar, *Essays*, 12.

familiar materials, the author succeeded in adding a freshness to the old topics by a discussion often vigorous and full of emotion. Bowen had unbounded faith in his country; his book produces on the mind an impression like that which the young America it describes makes upon the imagination. It overflows with hopeful energy, like that which brings encouragement to the unsuccessful worker in the crowded places of the Old World, when he thinks of a new country to which he may carry his willing hands and his ambitious hopes.

Our author was a national economist; he entitled his work *American Political Economy.* His method of reasoning and the character of his economic studies made descriptive writers like Samuel Laing particularly interesting to him. His own work so abounds in the description of conditions that he loses sight of fundamentals. He fails to see the woods because of the trees. It cannot be said that in his whole discussion on rent, he either tells what the rent-thing is or gives any positive theory to account for its origin, its increase, or its diminution. Though defining political economy as a science, he proceeds to treat it as an art. His splendid command of English together with his habit of introducing profound questions tends to make his work charlatanic, wheedling, sentimental, and, at times, deceptive through a skillful use of fair words.

The title, *American Political Economy,*[3] deserves comment. In the preface to this work, he says, "The title under which the book now appears may seem to require defense or explanation. I hold, with Mr. Samuel Laing, that 'every country has a Political Economy of

[3] The title of his edition of 1856 was, *The Principles of Political Economy applied to the condition, the resources, and the institutions of the American People,* the edition of 1870 was titled, *American Political Economy,* etc.

its own, suitable to its own physical circumstances of position on the globe,' and to the character, habits, and institutions of its people." [4]

He admits that certain economic principles are general, and applicable to "all nations under the sun." "But," says he, "it must be admitted, I think, that these universal principles are comparatively few and unimportant, and if the science were limited to them, it would be of narrow compass and limited utility." [5]

Professor Bowen believes that the science must be treated inductively, and that, although Ricardo, J. S. Mill, and their followers professed to treat the subject deductively and in the abstract, so that their conclusions could be universally applicable, yet "The system which they expounded is really the Political Economy of England alone, and is even more characteristic and peculiar than her social organization and civil polity." [6] He claimed with truth that English circumstances and problems received undue attention as compared with other problems of equal importance in a well rounded system of distribution.

Bowen's starting point, or first assumption, is that a certain thing is desirable, that this is a good or that is an evil. His problem was to acquire the good and to avoid the evil. He would use economics as a portion of that art of statesmanship. Bowen insists upon the utility of *laissez faire* and of the natural order, yet he makes a plea for governmental restraint both internal and external. He is anxious to preserve "the benevolent purpose of the Designer" which turns the course of the self-chosen effort of individuals toward the common defense and the general prosperity of all. He tells us

[4] Bowen, *American Political Economy* (2d ed.), iii.
[5] *Ib.*, iv. [6] *Ib.*, v.

that the attempts of legislators to turn the industry of society in one direction or another, out of its natural and self-chosen channels are almost invariably productive of harm. Yet the leading characteristic of his entire work is an elaborate defense of protection.

Under his treatment, *laissez faire* acquires a somewhat ludicrous sense. The *laissez faire* that Bowen conceived would not ask the government to keep its hands off of industries; rather it would preserve precious liberty to the individual by tying the hands and feet of everybody else, lest he should be interfered with.[7] Bowen thinks the benevolent purpose of the Designer is to cause the acts of those who are thinking only of their own credit and advantage to benefit others.[8]

"We are all servants of one another without wishing it, and even without knowing it; we are all cooperating with each other as busily and effectively as the bees in a hive, and most of us with as little perception as the bees have, that each individual effort is essential to the common defense and general prosperity.[9]

Bowen advocated limitations of the *laissez faire* doctrine. Legislative prohibition of vice and crime only remove stumbling blocks that obstruct the working of the natural laws. "To remove such stumbling blocks, then, is not to create, but to prevent, interference with the natural order of things. Legislation directed to this end is only a legitimate carrying out of the *laissez faire* principle."[10] He extends this principle until it encompasses the prevention of *external* dangers and hind-

[7] *North American Review*, (July, 1870), III, 246. Bowen, *Political Economy*, ed. 1856, 20, 23, 27. Bowen, *American Political Economy*, 18-22.

[8] Bowen, *Political Economy* (1856), 20.

[9] *Ib.*, 27.

[10] *Ib.*, 23-24.

rances, and allows for retaliatory legislation as between nations. [11]

In his estimation, differences in the economy of nations make necessary certain restrictive legislation in order that the people of a nation may thus procure larger liberty than they would otherwise enjoy. Our author's conception of the principle of *laissez faire* makes this doctrine a basis, or rather a demand, for a protective tariff.

Bowen's opinions on value and wealth are very unlike those of the English economists. Because these opinions are preparatory to the rent problem, I shall now review them. His reasoning on value is strictly limited to the concept of exchangeable value. [12] Exchangeability depends on the utility of a commodity together with its difficulty of attainment. [13] Then, too, he says, the value of a machine may be either the labor which it saves, or the labor which it costs. Thus, in his discussion of value, at least three unlike concepts appear.

His definition of wealth is broad enough to include those agencies, material or immaterial, which render gratification to our desires. He says:

> Many Political Economists exclude immaterial products from their definition of wealth because the labor which is devoted to such products ends in immediate enjoyment, without any increase of the accumulated stock of permanent means of enjoyment. "When a tailor makes a coat and sells it," argues J. S. Mill, "there is a transfer of the price from the customer to the tailor, and a coat besides, which did not previously exist; but what is gained by an actor is a mere transfer from the spectator's funds to his, leaving no article of wealth for the spectator's indemnification." We reply, that *the purchaser obtains only a gratification of desire* in either case. From the coat, he has *moderate enjoyment prolonged for some months;* but he might do without it, and work in his shirt-sleeves. From

[11] *Ib.*, 25.
[12] Bowen, *American Political Economy*, 33.
[13] Bowen, *Political Economy*, 32.

the theatre he has *keen enjoyment that lasts only a few hours;* and he may prefer such pleasure to the luxury of additional clothing. It is inconsistent to give the name of wealth to what pleases our palates for a moment, and deny it to what gives keener pleasure to our ears. The characteristic of all wealth is, directly or indirectly, to satisfy some want, or gratify some desire. Food which is ready to be eaten is wealth, just as much as the knives and forks with which we eat it; though the former is devoured at once, and there is an end of it, while the latter may remain in daily use for years.[14]

This reasoning attaches the concept of wealth to usance rather than to productive agents themselves. In fact, his whole thought seems to center on returns rather than upon the nature of the agency giving origin to returns. Consequently personal services, the produce of capital agencies, and the produce of the land would be treated by the same law. Then, as we shall see, he finds profits and rent to be one and the same thing. His distinction between them is only in name.

"Malthus on population and Ricardo on rent are the great dragons against which he feels bound to do vigorous battle."[15] True to his environment he claims that "down to the present day, the only evil which has been felt has been, not an excess, but a deficiency, of population."[16] He dwells upon the ambiguity of the word "tendency" in the discussion of Malthus, and paints a most horrible picture of the consequences of that author's reasoning.[17]

After stating the Malthusian doctrine and pointing out its consequences, he, taking the theological point of view, says: "I hope to prove satisfactorily, that the doctrine itself is a mere hypothetical speculation, having no relation to the times in which we live, or to any

[14] Bowen, *American Political Economy,* 1-2, note.
[15] *North American Review,* July, 1870, III, 246.
[16] Bowen, *Political Economy,* 137.
[17] *Ib.,* 139-140.

which are near at hand. In those facts which appear so alarming to the Malthusians, I see only indications of a beneficent arrangement of Providence, by which it is ordained that the barbarous races which now tenant the earth should waste away and finally disappear, while civilized men are not only to multiply, but to spread, till the farthest corners of the earth shall be given to them for a habitation." [18]

Taking the dynamical concept of returns, he claims that if population increases even in a geometrical ratio no scarcity would be produced for centuries. "The great and palpable error of the Malthusians consists," he declares, "in assuming, without a particle of evidence, nay, when all the evidence tends to *the contrary,* that *the time has already come,* that population has reached its limits, that there is even now a deficiency of food so that the only present mode of increasing the happiness of the lower classes is to lessen their numbers."

He claims that Malthusianism is, in its simplest form, only an expression of a law that belongs both to the vegetable and animal kingdoms. He admits the truth of its tendency, yet claims that it has no applicability to the present state of affairs. He thinks that the application of this doctrine to the affairs of man is as remote as the loss by the sun of its heat. But if a person begin to economize oil, candles, and fuel, for that remote day, "his friends would reasonably be alarmed for his sanity, and would urge him to retire for a while to a madhouse." [19]

He shows that the population of Belgium (1846) was 344 persons to the square mile. They lived in comfort. From this example, he concludes that the time is beyond

[18] *Ib.,* 141.
[19] *Ib.,* 141-2.

our imagination when the entire earth will be as densely populated as that country.[20] He uses the argument so frequently advanced by his American predecessors, that, while there will be more work to do with the increase of numbers, yet there will be more hands to do it. At this point, he admits diminishing returns in the historical sense, but considers the principle of no particular significance.[21] He thinks that it is a faulty distribution rather than the niggardliness of nature which causes poverty.[22] On this point, his views are precisely the same as those of Daniel Raymond.

Erroneously, I think, he claims that a disproof of Malthusianism is found in the fact that nations, especially barbarous and half-civilized nations, have, in history, diminished in numbers as a result of war, famine, disease, vice, and ignorance, but that their diminution has not been occasioned by the niggardliness of nature. He says, "The wasting away of such tribes may be, in some cases, the consequence of a deficiency of food; but it is certainly not the result of over-population; for the civilized men who come to occupy their places, obtain from the same soil abundance of food for a population larger than theirs by twenty or a hundred fold."[23] He cites the case of the North American Indians as an illustration. Malthus certainly would have agreed with this statement, for in his contention that population does press and has actually pressed upon the means of subsistence, his view was static rather than dynamic. He considered conditions at the time being. What are the facts under the existing circumstances, not what would they be under more advanced and different circumstances, was the problem in the *Essay* of Malthus.

[20] *Ib.*, 142-44. [21] *Ib.*, 144-45. [22] *Ib.*, 145.
[23] *Ib.*, 145-6; quotation from 146.

Bowen then advances the argument previously urged by A. H. Everett, namely, that with money I "can purchase food of my neighbor, that I can even lay the fertility of both Indies and of the farthest corners of the earth under contribution to supply my personal wants. Communities and nations act, in this respect, just like individuals." In other words, his thought is that a nation is not fed necessarily by the products of its own soil, but that, through exchange, any people may command the products of any part of the world. Therefore, if diminishing returns in agriculture so act in a particular section of the world as to limit the necessities in that locality, the people there will turn to other industries and will depend on other sections of the world for their necessities. He, like Everett, thought such an argument would defeat the evil consequences of diminishing returns. [24]

Such an argument, it should be noted, does not overcome the consequences of diminishing returns, but merely shows how its immediate effects may be averted. As we have seen, Cooper's reply to Everett's statement on this point seemed conclusive.

This fact of the people's drawing their support from all parts of the earth is cited by Bowen as one of "the two great facts which afford a complete refutation of Malthusianism." [25] The second "great fact" which, he claims, affords "complete refutation to Malthus," is "that the practical or actual limit to the growth of population in every case is the limit to the increase and distribution, not of food, but of wealth." [26] This is to say that there is, and will be, a bountiful sufficiency of necessities for an augmenting population, and that the real

[24] *Ib.*, 146-7; quotation from 146.
[25] *Ib.*, 148.
[26] *Ib.*, 148.

problem lies in the securing of such a distribution of purchasing power as will enable the supply of necessities to be adequately utilized by all men.

These two arguments are corollaries in that the one must accompany the other, in order to refute the supposed dictum of Malthus that population is limited by the productivity of the soil it occupies. Through a faulty distribution, he accounts for the famine of 1847 in the British Isles. At any one time, there is no general famine the world over; want in one section of the world may be supplied by other sections; therefore, if the distribution of wealth, or purchasing power, be adequate, famine would be an impossibility. "In 1847, the bounty of Providence to the British Isles did not fail; shiploads of corn were turned away from their shores for want of a market. The granaries of two Islands were filled to overflowing, not indeed from the products of their own harvests, but from the immense supplies poured into them by our ever-teeming land. . . . The fate of the Irish and Scotch appeared the more terrible, because they starved in the midst of plenty." [27]

Professor Bowen accuses Malthus of a fallacy of inversion. In reply to the contention of Malthus that population grows in response to an increase of subsistence, our author says: "More grain is raised because there are more men who need it, and not more men are raised because there is more grain to feed them with. Procreation is not stopped because there is no more grain, since misery and peril of starvation only make men reckless, and cause them to multiply faster. But agriculture is stopped when there are no more mouths calling for food; a cessation of demand causes

[27] *Ib.*, 149-150, quotation from 150.

a cessation of supply here, because the husbandman is looking only for pecuniary gain." [28] "It is not the excess of population which causes the misery, but the misery which causes the excess of population." [29]

Whatever affects most strongly the inclination to labor and to save, and thus furnishes the stimulus for the accumulation of capital, also regulates in a great degree the increase of population. Awakened ambition for the attainment of riches or for the advancement in society cause prudence in one's expenditures, and check one's contracting any relations that may become a burden to his advancement. In a normal state, the inclination of the people to marriage is governed by their opinion of the effect which marriage will have upon their position in life. [30] "In a newly settled region, children are a help to the parents' advancement, because labor is so valuable; hence the rapid advance of population in the frontier states of our own Union." [31] He argues that children are not as advantageous to parents in case of a dense population. In this, he is in harmony with the thesis of George Tucker, namely, that the birth rate diminishes as the density of population increases. [32]

His views may be summarized as follows:

(a) An increased population is desirable in order better to utilize the world's natural resources.

(b) By a beneficent arrangement of Providence, the barbarians shall waste away, and civilized peoples shall occupy the farthest corners of the earth.

(c) Necessities will increase faster than a civilized population.

(d) There are historical diminishing returns, but their

[28] *Ib.*, 150-1.
[29] *Ib.*, 152.
[30] *Ib.*, 155-6.
[31] *Ib.*, 157.
[32] *Ib.*, 160.

evil consequences are so remote as to make them unworthy of consideration.

(e) Poverty is due, not to the niggardliness of nature, but to a faulty distribution.

(f) Population does not depend on the land which it occupies for subsistence, but draws from every corner of the earth.

(g) Population is the cause of abundance rather than of scarcity.

(h) The growth of population will be limited more and more by the negative check as civilization advances.

(i) In sparsely settled regions, children are an aid to their parents; but, with the increase of numbers, the birth rate will decline.

Bowen regards the Malthusian theory and the Ricardian theory as phases of the same problem. Therefore much that has been said on the population-problem applies with equal force to the rent-problem. To the population-problem, rent is a supplement which "comes in to fill up the deficiency in our heritage of woe." He saw clearly that the rent and population theories grew out of the peculiar social conditions of England, where a small class owns the land. Feudal relations have disappeared there, but the magnitude of feudal estates is not diminished. English noblemen have turned their vast estates into deer-parks and the rural tenantry has been driven into the manufacturing districts. Land-monopoly, high rents, and burdensome taxes are characteristic of the conditions in England.

Bowen claims that Ricardo's theory contains few general truths, and is inapplicable in other countries. England alone has a laboring class entirely dependent on wages. Ricardo's theory was invented to suit these conditions. American conditions are the reverse of those

in England. An increase of population in this country means increasing rather than diminishing returns, and a lower rather than a higher price for food and necessities.

Bowen claims that Ricardo's main basis of rent, "the original and inherent powers of the soil," is no basis for a theory of rent; that these powers may readily be produced by labor, and will be if the location justifies the expenditure for such creation. He also minimizes Ricardo's other basis of rent, that of location. Bowen seems to think that location also is artificial. Location is nearness to population and is created or destroyed with the movement of population from place to place. From this reasoning, he reaches the conclusion that, "Rent depends, not on the increase, but on the distribution, of the population. It arises from the excess of the local demand over the local supply." Rent is determined either by the expense of bringing the food from a distance to the population or by the expense and inconvenience of the population going to the food.

Although this reasoning accounts for both the qualities of land and the location of land as matters of human production, yet it implies an admission of the law of diminishing returns and proportionality. The need of transportation or of the distribution of population over the earth is occasioned only by the fact that there exists an elastic limit to the productive powers of land in any one place. [33]

Bowen contends that, with a distribution of popula-

[33] This reasoning further suggests the narrow limitations which Ricardo's thought placed upon certain of his so-called general suppositions. For instance, Ricardo would have the movement of labor from profession to profession or from place to place to equalize wages; now why, by a like movement of population, would he not have rents equalized? His assumptions respecting the movement of population in the equalization of wages were general; his assumptions respecting the employment of labor on different grades of land were local in their application.

tion over the entire land, rent would not exist, for there would be no scarcity of land relative to the demand for its products. But, he says, the development of manufactures requires a concentration of industries, so that a division of labor can be worked out effectively. Civilization depends upon a development of all productive forces; therefore, such a distribution of population as would do away with rent cannot exist. Rent, then, depends upon the centralization of productive forces and the collection (not the increase) of population into towns and cities. Local rents depend upon local markets. From this argument, he concludes that rents are based entirely on the territorial distribution of population.

Ricardo teaches, at times, that the interests of the landlord class are opposed to the interests of the rest of the community. Bowen thinks that a rise in rents works to the benefit of all classes. Farmers who pay the rent are compensated by higher prices for their products; it is the higher prices which cause rent. Moreover, they are compensated by the many advantages of being in the vicinity of a market. Manufacturers pay more for their corn where rents are high; but, because of the same conditions which produce rents, they find a readier sale and a higher price for their products. Like Carey, Bowen claims that, where the manufacturing town and the farm are brought together, a positive gain results to the whole community because of the many advantages of concentrated industries. Concentrated industries make a ready market for all products, and permit the best utilization of all productive energy. Another "positive gain to the community consists in the saving of transportation both ways." Moreover, like Carey, Bowen uses this reasoning in support of protection.

There is but slight excuse for the error of those who claim that Professor Bowen denied the law of diminishing returns. His whole argument is founded upon the principle of this law as applied to a limited area. His problem is how to avert its evil consequences by a better distribution of population.

The next chapter will be devoted to John Bascom and Amasa Walker: we shall find that, although these authors did not follow closely in the lead of Bowen, they were profoundly influenced by his writings.

CHAPTER VIII

JOHN BASCOM AND AMASA WALKER

WHEN Bascom and Amasa Walker wrote,[1] the old problems which had inspired earlier economic writings in America had largely disappeared. A liberal reform of the tariff had long since been accomplished; the establishment of the sub-treasury was a thing of the past; and the publication of J. S. Mill's *Political Economy* had seemingly set at rest all economic differences by monopolizing the choicest thought, style, and method of the science. Slavery and great sectional issues had become paramount questions. This was a period of transition in which the classical school acquired greater prestige.

John Bascom (1827-1911) was born at Geneva, New York. He was the son and grandson of clergymen, and a descendant on both sides of old New England families among whom were many men of influence and distinction. At the age of twenty-two, he was graduated at Williams College. Then he studied law for a year, attended Auburn Theological Seminary, tutored for a time at Williams, and was graduated at Andover Theological Seminary in 1855. During the next nineteen years, he taught English at Williams College. From 1874 to 1887, he was President of the University of Wisconsin. After leaving Wisconsin, he lectured on sociology for a period of four years at Williams. On the retirement of his life-long friend, Professor A. L.

[1] Bascom's economics appeared in 1859 and Walker's in 1866.

Perry, in 1891, he became Professor of Political Economy at Williams and held the place for ten years. In 1903, after forty-eight years of service as college teacher and executive, he resigned. The remainder of his life was given to writing and to public service. Between 1859 and 1901, he was the author of twenty-two books.[2]

We have seen that the training, experience, and interests of Bascom were in fields other than economics. In fact, among our earlier professors who taught economics, it was not considered necessary to acquire systemic knowledge in this subject.[3] His life was devoted largely to theology and philosophy, and his environment was the classroom and the library rather than the industrial world.

He defines economics as the science which treats of values.[4] By "value," he means purchasing power; consequently economics is the science which treats of purchasing power.[5] From this definition, logic would compel him to emphasize the problem of distribution, whereas, in reality, his book contains a theory of prosperity rather than a theory of distribution.

With some modifications, Bascom would accept the theory of Malthus on population. He said, "Malthus made an important contribution to the science, by a more enlarged discussion of population and its relation

[2] His books include: (a) *Political Economy* (1859); (b) *Aesthetics* (1862); (c) *Philosophy of Rhetoric* (1865); (d) *Principles of Psychology* (1869); (e) *Science, Philosophy, and Religion* (1871); (f) *Philosophy and English Literature* (1874); (g) *A Philosophy of Religion* (1876); (h) *Comparative Psychology* (1878); (i) *Ethics* (1879); (j) *Natural Theology* (1880); (k) *Science of Mind* (1881); (l) *The Words of Christ* (1884); (m) *Problems in Philosophy* (1885); (n) *Sociology* (1887); (o) *The New Theology* (1891); (p) *Historical Interpretation of Philosophy* (1893); (q) *Social Theory* (1895). See: *A Memorial service in honor of John Bascom at the University of Wisconsin*, Madison, 1911; Lamb's *Biographical Dictionary*, I, 217, Boston, 1900.

[3] Haney, *History of Economic Thought*, 515. See also A. Walker, *The Science of Wealth*, 2d ed., VII.

[4] Bascom, *Social Theory*, 119.

[5] *Ib.*

to food; though his statements, as is natural with one bringing forward a new principle, were one-sided and extreme, demanding the correction of later authors." [6]

His reasoning on population may be briefly presented as follows:

(a) The human species is capable of indefinite multiplication. Labor has no limits within itself. Population tends to double itself in twenty-five years, as a result of the intrinsic productive power of man. [7]

(b) Land is limited in amount; from it comes food; therefore, the population is restricted by the limitation of the earth's productive capacity. Population is an unlimited and immeasurable force dealing with limited and measurable quantities. "Let the boundary be placed where it may, and such a force will find it. The capacity of the globe is this boundary." [8]

(c) The limits of population are always determined by the *status quo* of the people, by their location, knowledge, and habits. It matters not that the earth could produce more. Pressure is present when the limit of the food supply under existing conditions is reached.

(d) This state of pressure is reached soonest where civilization is at the lowest ebb.

(e) This state may be, and has again and again been reached when the population was sparse.

(f) The universal tendency is for population to outstrip the means of subsistence. [9]

Bascom recognizes the limiting forces of both the positive and negative checks to population. [10] He bases the whole problem upon the limitations to agriculture. Briefly, his reasoning is that population is limited by capital;

[6] Bascom, *Political Economy*, 17.
[7] *Ib.*, 118.
[8] *Ib.*, 119.
[9] *Ib.*, 121-122.
[10] *Ib.*, 125, 126.

but capital is limited by agriculture; therefore population is limited by agriculture. [11]

Regarding rent Bascom tells us that, "It is the deductive force of the law, not its historic force, that impresses the mind." [12] "It has been the rare exception, taking human history collectively, that the law of Ricardo has been found governing the values of land." [13] This law has been a most complex social problem, "not because of any complexity in the law, but because of its ineffectiveness." [14]

He teaches that rent is the product of natural agents, which are of two classes: those productive of material, and those productive of power. Land is the chief agent of the first class. He says that the value of land as a productive power depends on two things: its fertility and its location. The latter is more important in determining the value of land. Distance and difficulty of approach may overcome the advantage of greatest fertility. Land serves two purposes: positions for buildings and arable surfaces. The former use gives value to only a small portion of the earth, while the latter use gives value to a large portion of the earth's surface. In this latter use, however, both location and fertility are combined. [15]

Our author approaches the problem of rent from the side of price rather than of the marginal land under cultivation. He says, "Rent and the cultivation of the poorest grade of soil are both effects of the same cause, the rise of value in produce." [16] Taking the postulate that there is but one price for produce in the same mar-

[11] *Ib.*, 127.
[12] Bascom, *Social Theory,* 123.
[13] *Ib.*
[14] *Ib.*, 1.
[15] Bascom, *Political Economy,* 35-36.
[16] Bascom, *Social Theory,* 121.

ket, he says that the differential advantage accruing to the landlord who holds superior grades of land (superior in both location and fertility) is known as rent. He says, "Difference of opportunity is the sole basis of rent; he who is in possession of the higher opportunity demands for it a recompense. This difference arises both from the limited amount of original gifts and from the variety in their intrinsic worth, in their fertility and position. This elasticity of tillage, by which it gives way, but with increasing difficulty, before advancing population, is the brake by which the motion of the train is regulated, is the rubber bed by which its movement is made pleasant and safe." [17]

Bascom holds, as did Ricardo, that rent arises from two causes: the limited supply of natural agents [18] and the difference in productive power which exists between them. [19] He concludes, however, that differences in soil are only a measure of rent rather than a cause of rent. If the problem of rent be approached either from the cost of production under the most unfavorable circumstances or from the price of produce on the market, differences in soil appear only as a measure, and not as a cause of rent. But if differences in soil are only a measure and not a cause of rent, it follows, contrary to Ricardo's thought, that rent would exist were all soils of the same quality. Rent, then, would find its sole origin in the limited capacity of the earth to produce commodities. This thought, logically speaking, makes the law of supply and demand the cause of rent. That the law of supply and demand is the cause of rent, in Bascom's reasoning, is put beyond debate when he denies Ricardo's fallacy of inversion and teaches that

[17] Bascom, *Political Economy*, 154-155. Quotation from 155.
[18] *Ib.*, 153.
[19] *Ib.*, 156.

the price determines the lowest margin of cultivation rather than that the lowest margin of cultivation determines the price.

Bascom finds a limit to the supply of produce in the law of diminishing returns (proportionality). Consequently, it is because of this law that rent exists. He says, "On the supposition of equal advantages in the various soils, it is the decreasing returns, which, land being all occupied, shortly begin to be made to all additions of effort, that occasion rent." Double or quadruple the labor, and crops will not proportionately increase. [20] Returns refer to produce rather than to value. Under static conditions, returns, after a certain point, diminish per unit of expenditure upon a given area. Though the limit to returns is never reached, yet the increasing resistance encountered in intensive cultivation leads to the occupation of new soils. Extensive cultivation is opposed by such causes as inferior soils, greater distance from markets, transfer of tools, and the like. So, while the resistance in intensive cultivation leads to extensive cultivation, the difficulties of extension lead back to intensive cultivation. The result is, that the margins of extensive and intensive cultivation tend to produce equal profits to capital. [21]

Bascom had not conceived the distinction between static and historical diminishing returns. In keeping with the Ricardian school, he holds to a static condition in agriculture and to a dynamic condition in the case of manufactures. Adhering to an instrumental concept of capital, he says, "The returns of labor employed in any manufacture tend to increase by an increment greater than that due to the increment of labor. This proposi-

[20] Bascom, *Political Economy*, 153.
[21] *Ib.*, 27-29.

tion we state in connection with capital, as capital is the soil of this kind of labor. The increase in the returns of mechanical, as opposed to agricultural labor, is chiefly due to two things: the ever enlarging career of invention and the accumulative power of capital. . . . In the processes of the arts, no state is ultimate, but the same powers which secured the present give promise of something beyond it." [22]

When Bascom wrote, there was need for a larger population relative to our natural resources. An increase of numbers meant an increase of national prosperity. The harnessing of new lands, the better utilization of old lands, improvements in scientific methods, in seeds, fertilization, transportation facilities, and the division of labor, together with superior marketing facilities, were dynamic forces in agriculture. So powerful were these forces in agriculture at that time that it is strange that an American economist should think of diminishing returns for agriculture and of increasing returns for manufactures. The reason is, in the writer's judgment, that Professor Bascom was influenced more by the prevailing, the English, economics than by the industrial conditions of his country.

Turning from Bascom, the professor, to his friend Amasa Walker, the statesman and business man, we find an economics more in harmony with industrial demands. Bascom's subtle work follows the classical economists and reflects the academic environment. Walker's book is little more than a comprehensive treatise of money and finance; it considers political economy as "emphatically a business science." [23]

[22] Bascom, *Political Economy*, 77.
[23] Walker, A., *Science of Wealth*, Pref., vi.

A brief presentation of Walker's career will account, at least in part, for the nature of his work. Amasa Walker [24] (1799-1875) was born at Woodstock, Connecticut. He was always feeble and delicate, but a want of physical stamina had its recompense in the impulse given him to study and reflection, and, perhaps, in a higher capacity for intellectual enjoyment. He took the utmost advantage of the limited opportunities offered by the village schools, though feeble health deprived him of the benefits of a college education. "In the intervals between the public schools, the boy used to recite to the Rev. Dr. Snell, having among his fellow pupils William Cullen Bryant and Elijah Meade." [25]

Amasa Walker had some experience in teaching; he was a business man who achieved distinct success; in politics, he was a public spirited leader. His political career began in 1829 when he entered actively into the movement against Masonry, which culminated in the nomination of William Wirt for the presidency, in 1832. He was a strong anti-slavery advocate. He took an exceedingly active part in the Harrison campaign, "strenuously advocating the establishment of the Sub-Treasury system, as it at present exists. For this he was subjected to a degree of obloquy which it would be difficult to conceive." [26] As a result of his long-cherished anti-slavery convictions, he took an active part in the formation of the Free Soil Party in 1848. He was a member of the national convention which nominated Van Buren for the presidency. In the fall of that year, he was elected to the legislature in Massachusetts and

[24] Palgrave, 1899, III, 648-649. *Int. Encyc. Amer. Biography*, XI, 438. *Memoir of Hon. Amasa Walker*, by F. A. Walker, Boston, 1888. Reprinted from *New England Historical and Genealogical Register*, Apr., 1888.

[25] Walker, F. A., *Memoir of A. Walker*, 4.

[26] *Ib.*, 8.

was a candidate for speaker of the House, representing the Free Soil and Democratic factions. In 1849, he attended the International Peace Congress at Paris, and became one of its vice-presidents. In the fall of that year, he was elected to the Senate of his state. Two years later he was elected Secretary of State for Massachusetts, by the united Free Soil and Democratic vote. In 1853, he was a member of the convention for the revision of the Constitution of his state. Finally his political career culminated in his election to Congress (1862), where his chief interest was devoted to questions of finance.

Francis A. Walker said of his father, "In politics, Mr. Walker's history was as follows: he was brought up among Federalists; became a Jackson Democrat, on the issues of paper money, banking, and the sub-treasury; joined the Liberty party in 1844; helped to found the Free Soil party in 1848, and the Republican party in 1856." [27]

At the age of fifteen, he went into the mercantile business, first as an employee. "Probably no clerk was ever more diligent and faithful or had a higher sense of the importance of his work." [28] Later he went into business for himself, and extended his business to large proportions. His great success and intelligent interest in the mercantile business determined largely the character of his economic thought. His interest in economics centered on the medium of exchange. Like Ricardo, he was attracted to general economics through a study of finance.

In 1854, he was influential in the founding of the North Brookfield Savings Bank, of which he was the

[27] *Ib.*, 14.
[28] *Ib.*, 4.

first president. The following quotation from F. A. Walker regarding his father is significant:

> The year 1857 was one of great import to the life of Mr. Walker. Early in that year he began the publication, in Hunt's *Merchants' Magazine,* of a series of articles on political economy. The series had already progressed so far as to give Mr. Walker's views on money, when the financial panic of 1857 commenced. Almost by chance, Mr. Walker attended, early in October, a large meeting of the merchants of Boston, intended to fortify the banks of that city in their determination to maintain specie payments. At this meeting, Mr. Walker took the ground strongly that the banks could not possibly maintain specie payments for more than two weeks, and that it was desirable they should at once suspend, instead of causing the failure of the best merchants of the city, as they must inevitably do, by refusing discounts in a vain attempt to save their own so-called honor. This speech created a great sensation at the time, and gave rise to a heated discussion in the public press; but the suspension, within twelve days, of every bank in Boston, after causing the failure of great numbers of the best mercantile houses, some of them worth millions of dollars, gave so striking a confirmation to Mr. Walker's views as to bring him into prominence as an authority on finance, and to cause him to be invited to write and lecture far beyond the limits of his time and strength. This episode may properly be considered the turning point in Mr. Walker's intellectual career. From this time till the day of his death, the subject of the currency remained the most absorbing of all which had previously engrossed his mind, and his interest increased with the passage of years.
>
> Late in 1857, Mr. Walker published a pamphlet on the *Nature and Uses of Money,* to which he added a *History of the Wickaboag Bank,* a work which had a large circulation. Mr. Walker's views on money, as presented in this pamphlet, were essentially those of the so-called 'Currency School' of which Lord Overstone, Col. Torrens, and Mr. George Warde Norman were the leaders in England; and of which Mr. Walker, Mr. William M. Gouge, and Mr. Condy Raguet became the best known writers in the United States.[29]

Mr. Walker's enthusiastic interest in railroad construction in 1835 entitles him to be classed as a pioneer in the history of American railroads. He wrote and made speeches in behalf of extending railroads to the

[29] *Ib.*, 10-11.

west. His writings gave rise to a public meeting in Boston which resulted in securing the stock of the Western Railroad. He became a director of this road in 1837. Two years later, he visited St. Louis, and, in a convincing address, urged the citizens to take action for securing a railway connection with the East. So strongly did he have the mercantile viewpoint that he, in reality, made the railroad question a merchant's problem. The thesis of his western speech was that because of the difficulties of water transportation, "The merchant cannot depend on getting his goods promptly. . . . This is a great evil—all are injured, many ruined by it. Goods purchased for the Fall sales do not get to the place of their destination until Spring. This occasions great loss and embarrassment to the trader, much disappointment and inconvenience to his customer." [30]

How railroads would develop western lands, influence values and rents, distribute the population, cause the erection of cities, towns, and industries, were not emphasized. F. A. Walker says, "At that time, Mr. Walker's suggestion that a man might yet go from Boston to St. Louis in five days, or less, and eat and sleep on the cars, created no little amusement." [31]

Mr. Walker's mercantile interests, his studies in exchange and currency, his political affiliations and his opinion that, "economically, it will ever remain true, that the government is best which governs least," [32] these naturally led him to accept the principle of the freedom of trade.

When Walker wrote his text, slavery was, and had been, the question of absorbing interest. With the earlier questions of the tariff, the sub-treasury, and others set-

[30] *Ib.*, 6-7, gives his reported remarks.
[31] *Ib.*, 8.
[32] Walker, A., *The Science of Wealth*, 92.

tled for the time being, and after the publication of Mill's work, the classical school came more into prominence. Another, and doubtless the strongest, influence that caused Walker to ally himself with the classical school was his study of Adam Smith and Ricardo. In 1840-41, he went to Florida for his health, carrying with him the works of Adam Smith and Ricardo. This stay in Florida gave him opportunity for much reflection. In his work on general economics, his references are almost entirely to the classical economists. On questions other than finance, he refers only to George Opdyke of all the earlier American economists. But of the English economists to whom he refers and with whom he evidences an acquaintanceship are Cairnes, Malthus, Ricardo, McCulloch, Fawcett, J. S. Mill, and Adam Smith. He also refers to Bastiat and Levi. He refers to Adam Smith far more than to other economists. He calls J. S. Mill the ablest of living writers,[33] and compliments Bastiat quite as unreservedly.[34]

Regarding population, Walker says that the glut, famine, and death theories of Malthus have exhausted the direct horrors of the subject. He teaches that all "British philosophy of population is perverted and diseased from its root." This philosophy comes out of social wrongs and false political institutions. It strives to apply, as a universal condition of human being, the miserable results of local misrule.[35]

He says, "The two postulates of Malthus are: (1) that subsistence is stationary or retrogressive; (2) that propagation is a constantly operating force, enlarging population in some assignable ratio. . . . —There are here three fallacies: (1) that subsistence is not pro-

[33] *Ib.*, pref., viii.
[34] *Ib.*
[35] *Ib.*, 452.

gressive, (2) that population necessarily increases, (3) that, even if these were granted, there would exist between them any such melancholy relation as is assumed." [36]

He maintains that, under wise and intelligent culture, the soil will grow more fertile, that mechanical advancement will free more labor from the industrial arts to go into agriculture, and that the possibilities of chemical discoveries and other aids to agriculture justify almost any degree of expectation for future increase. [37] He claims that the forces opposing the growth of numbers are quite as strong as those encouraging such growth, that the same God is author of both positive and negative forces, and that, consequently, they must be given equal weight in all calculations of human propagation.[38]

Resorting to the usual American argument, he maintains that rent is due not to the niggardliness of nature but to a faulty distribution:

> It is of no consequence whether Manchester or Birmingham can raise their own breadstuffs within their corporate limits, if they can create values which will lay all the markets of the world under contribution. [39] . . .
>
> In England, bad laws, passed by class legislation; oppressive institutions, the relics of feudalism; onerous taxation, incurred by the senseless war system; and unjust monopolies, created for selfish purposes—have combined to cause the ignorance, poverty, and degradation of the people, and to make the beneficent agencies of reproduction a partial curse. The laborers of England suffer for the commonest necessaries of life, while England is the richest nation on the face of the globe. Unquestionably, the value of the total production of English industry amounts to five times the value of the simple necessaries of life for her whole population. Now, if labor starves, is it the fault of nature? The density of population has nothing to do with it. It is because the common people have so little influence on the government; because the land is held for the pleasures and dignity of the lordly few; and because the national majority is borne down by a powerful, selfish, and grasp-

[36] *Ib.*, 452-453. [37] *Ib.*, 453.
[38] *Ib.*, 453-456. [39] *Ib.*, 456.

ing aristocracy. Though the people suffer, it is because of nothing in the extent or fertility of their soil. But for a complicated, legalized system of robbery and wrong, every man, woman, and child in the United Kingdom might be as well fed, clothed, and educated as are the inhabitants of the United States, and as much more so as England is today richer. Any man and any people that can create value can command subsistence in God's way.[40]

On the whole, Walker opposes Malthus at every point; he accuses Malthus of shaping his theory to the local situation in England. Walker's theory is an American theory, in harmony with the public opinion of this country previous to the Civil War. His point of view is that of the practical business man. When he wrote, our frontier still held out its promising opportunities. Population was still the short factor in our industries, and capital was demanding a larger supply of labor. The theory that "a larger population means abundance rather than scarcity" was true when Walker wrote.

In my judgment, Walker criticised a book which he had never read when he opposed Malthus. He gives no citations to indicate that he had read Malthus' essay; he attempts a statement of Malthus' thesis in two postulates, and both of them are wrong; and he thinks he has answered Malthus whereas in reality he has only stated another point of view.

In his discussion of population, I find little with which Malthus would not have readily agreed. He differs from Malthus, not in content, but in point of emphasis and viewpoint. Walker, like the national economists we have reviewed, was arguing a different question when he opposed Malthus. Malthus was arguing upon the basis of what is under the existing circumstances of a given time, or a given stage of human progress. Walker

[40] *Ib.*, 457.

took the idealistic point of view, and attempted to paint what would be under future, more advanced, and superior conditions. Two men, one with the static and the other with the dynamic point of view, may argue the same question of the pressure of population upon subsistence, and use precisely the same terms, and with pure reason and sound logic come to conclusions wholly dissimilar. It was not because our early economists were illogical that they failed to make a case against Malthus; it was because their viewpoint was wholly different that they failed to attack that which Malthus really taught.

It is the accepted opinion that, although Amasa Walker denies Malthusianism, he accepts unreservedly the Ricardian theory of rent. We have just seen that his difference from Malthus was only a matter of emphasizing particular phases of thought which would appeal to an American business man of his time, and that he said nothing derogatory to the real teachings of Malthus. Contrary to the accepted opinion, I find that he teaches a theory of rent widely different from that held by Ricardo.

Walker defines rent as follows: "Rent is paid for the use of land and its appendages, which together are called real estate." [41] He is always careful to speak of rent as a payment by one person to another, whereas Ricardo often speaks of rent as the surplus accruing to the proprietor who tills his own soil. Walker says that natural powers confer no value. [42] "We have said that nature adds value to nothing. Though unceasingly at work for man, she receives no compensation. She creates utilities beyond computation, but does all gra-

[41] *Ib.*, 294.
[42] *Ib.*, 10, 12, 16.

tuitously. Wind, water, and steam are most efficiently engaged in producing commodities necessary to the welfare of mankind; and the earth is unceasingly active to bring forth man's food in its many forms. Yet all is done without adding to the wealth of the world. The forces 'work for nothing,' and hence confer no value. . . . If we look to the fertility of the land, by far the greatest of all the natural forces engaged in production, we shall find that it confers no value." [43] But production consists in the creation of values; [44] therefore, since land is non-productive, it follows that labor and capital produce all. [45]

We are led to ask, What of the three productive agencies: land, labor, and capital? "Wealth includes all objects of value"; [46] land is an object of value; therefore land is wealth. "All capital is wealth, but all wealth is not capital. . . . Wealth is as it is *had;* capital, as it is *used.*" [47] But land is used wealth; therefore, land is capital. Very unlike Ricardo, then, he classifies land as capital, [48] and speaks of fixed capital as yielding a rent. [49] Consequently, in his classification of productive agencies, there appear only two classes: capital and labor. [50]

If land be capital, why not denominate that which is paid for the use of land interest rather than rent? He says, "Capital is loaned in two general forms: 1st, when invested with a permanent character and having a fixed place, as houses, fields, etc., its compensation is called rent." [51] When he speaks of "the man who owns

[43] *Ib.*, 16-17.
[44] *Ib.*, Bk. II, Chap. I.
[45] *Ib.*, 60.
[46] *Ib.*, 7.
[47] *Ib.*, 55.
[48] *Ib.*, 57, 253.
[49] *Ib.*, 253-280.
[50] *Ib.*, 60.
[51] *Ib.*, 253.

capital and receives his compensation for its use in the shape of rent,"[52] our author has in mind fixed capital. He says, "Improvements, more or less permanent, are investments of capital in real estate, changing the income from the form of interest to that of rent." [53]

His thought may be briefly summarized as follows: productive agents consist of labor and capital; there are two classes of capital—circulating and fixed. The former bears interest; the remuneration for the latter is denominated rent. Capital, however, is past labor having taken form; [54] then, like Carey, he must argue that rent is paid for improvements on the land. [55] So, unreservedly to style Walker a disciple of Ricardo is at once fallacious. Ricardo, emphasizing the original and indestructible qualities of the soil, teaches a pure land-rent concept; Walker, speaking of land as a free gift of nature from which "value is not derived," [56] emphasizes the capital-concept and teaches that rent is but a remuneration for the use of fixed capital.

Walker brings forward four elements of rent: location, difference of fertility, importations, and improvements more or less permanent. Location "grows out of the social conditions of man." [57] Assume that men live as isolated beings, and that there exists enough land for all, and that each part is equally productive, then rent could not exist. [58] Once men are gathered into villages and communities, however, rent quickly makes its appearance. [59] Natural differences aside, men prefer

[52] *Ib.*, 280.
[53] *Ib.*, 299.
[54] *Ib.*, 19.
[55] *Ib.*, 294.
[56] *Ib.*, 295.
[57] *Ib.*, 296.
[58] *Ib.*, 296-297.
[59] *Ib.*, 296.

locations that are central respecting public buildings for the accommodation of all (schoolhouse, church, etc.). Points at which the population can most readily assemble, and which form the natural center of business or landing-places, or where warehouses are put up for the commerce of the settlement, are factors that cause location to create a rental independent of all other considerations. [60]

On the difference of fertility, Walker says, "Mr. Ricardo, we believe, first brought out this principle clearly in his *Political Economy,* London, 1819." [61] He assumes four grades of land capable of producing forty, thirty, twenty, and ten bushels respectively, with the same labor. At first, No. 1 produces all the corn necessary and no rent accrues; when population so increases as to bring No. 2 under cultivation, then No. 1 will bear a rent of 10. Finally, when No. 4 comes under cultivation, No. 1 bears 30, No. 2 bears 20, No. 3 bears 10, and No. 4 bears no rent. [62] Walker fails to take cognizance of the fact that intensive cultivation must keep pace with extensive cultivation in order that equal profits may accrue to capital on extensive and intensive margins.

Walker's third element of rent, importations, is but an application of the extensive cultivation argument. In the above example, No. 4 produced no rent; but if all the land in a country were occupied and freights had to be paid to import corn, then No. 4 would bear a rent equal to its differential advantage. [63]

His fourth element of rent, improvements, consists of durable investments in real estate. Fertilizing, drainage, deep ploughing, and the like are included. "For every

[60] *Ib.,* 296-297. See also *Merchants' Magazine* (1860), xlii, 306.
[61] *Ib.,* 298 n.
[62] *Ib.,* 297-298.
[63] *Ib.,* 298.

such appliance, wisely made, a rent is received, supposed to be equivalent to the expenditure incurred." [64] Note the difference here between Walker and Ricardo. Ricardo insists that what Walker here denominates rent is not rent, but profits on capital. Walker, however, centers his whole discussion of rent upon this point. [65]

It is strange that Walker should be called a disciple of Ricardo on the rent problem. Walker's definition makes rent a payment for fixed capital and never a payment for the use of land as such; Ricardo's definition was the exact opposite. Walker always makes rent a payment by one person to another. Ricardo speaks of rent as a usance at times, and as a price at times. Walker thinks the rent-problem is of little importance. The exact opposite is Ricardo's view. Walker's emphasis is upon city rents, while Ricardo reasons almost wholly on farmers' rents. Walker thinks that land yields rent because of the expenditure upon its improvement. Ricardo considers land ready for the plough. Walker attempted a denial of Malthusianism; this theory was an essential element in Ricardo's rent doctrine. Walker treated diminishing returns not at all, nor did he even hint at intensive cultivation. Ricardo's theory of rent was a deduction from the law of diminishing returns, and his emphasis was equally strong on extensive and intensive cultivation. The one classifies land as capital; the other condemns strongly such a classification. Their views, therefore, are more antithetical than identical.

In this chapter, we have found that John Bascom, the college professor who was devoted to theology and philosophy, acquired his knowledge and bent in economics from the classical texts rather than from a touch

[64] *Ib.*
[65] *Ib.*, Bk. IV, Chap. VII.

with practical affairs. His thought was in accord with the Malthusian theory of population. He looked upon the law of diminishing returns as applicable only to agriculture, whereas a law of increasing returns ruled in the field of manufacture. To this as well as to the form of expression, the English economists would not object. But he departed from Ricardo when he taught that the price of the product determines the margin, thus making differences in soil no more than a measure of rent. He concluded, logically, that, if all soil were of equal quality, rent would exist.

Unlike Bascom, we have found that Amasa Walker was a practical business man who was denied a college education because of poor health. He objected to Malthusianism, regarded land as capital, and at times spoke of fixed capital as earning rent. Some economists have classified Walker as a disciple of Ricardo; but this was an error from the fact that the form of his expression was mistaken for the substance of his teaching. The next chapter will review the writings of A. L. Perry who undertook a somewhat wider departure from the English economists than did either of the authors reviewed in this chapter.

CHAPTER IX

ARTHUR L. PERRY

PROFESSOR A. L. PERRY[1] (1830-1905) was educated at Williams College and taught Political Economy at the same institution. He was a frequent contributor to *The Springfield Republican* and to *The New York Evening Post.*[2] His important economic writings consist of two texts: *Political Economy* (New York, 1865) and *The Introduction to Political Economy* (1877). He delivered numerous lectures in defense of the freedom of trade,[3] and carried on a series of debates with Horace Greeley in opposition to protection.

The works of Perry, like those of Bascom, Bowen, and Amasa Walker, appeared at a period when this science was at a low ebb. His work was written for the classroom. No great national problem called it into existence; rather his book was the product of a closet philosopher, and such products are as likely to appear out of season as in. Perry was an open-minded man, who, without prejudice and with a thirst for knowledge, read broadly. He acted upon the principle that the teacher must ever be a learner, simple and humble and sincere. His was one of the most popular texts that has appeared on this side of the Atlantic and the secret of its success was its simplicity.

He was one of the best equipped economists that America produced previous to 1885. His training in

[1] Appleton's *Encyc. Amer. Biog.*, IV, 734.
[2] *Outlook*, July 22, 1905, LXXX, 703-704.
[3] Ida M. Tarbell in *American Magazine*, LXIII, 476, LXIV, 175.

economics was far superior to that of Bowen or Bascom. But whereas Bowen often lost sight of fundamentals in his labyrinth of details, Perry leaned strongly in the opposite direction. He frequently failed to harmonize his general thought with the industrial facts of life, and often classified together things somewhat unlike in nature. This is the chief criticism to be made of Perry.

The year 1863 was a turning point in Perry's economic thought. Previous to that date "for ten or twelve years he had been retailing the usual doctrines of Smith, Ricardo, Senior, and Mill." [4] Perry says:

> Almost from the outset of my studies, however, and increasingly as the years went by, I kept asking myself, *"What is Political Economy about?" "Within what precise field do its inquiries lie?" "Is it possible clearly and simply to circumscribe that field?"* I could see no solid reason why economical discussions should be confined to tangible commodities, and not include as well personal services rendered for pay, and also credits of all kinds. I could not gain from the general terms used by the writers a firm conception of the science as including these three classes of things. The word "Wealth," which figured so largely in all the books, gave no satisfaction in this regard, for this best of reasons, that I never could gain with all my strivings a clear and generalized conception of just what that word covered. I found besides that no two of the writers had the same notion of the meaning of that word, and that no one of them all had given an adequate and self-consistent definition of it. I talked this matter over repeatedly with Professor Bascom, at that time my colleague and always my friend, and suggested to him a way of egress from the difficulty; and my mind had almost reached the conclusion in which it has now rested for many years with perfect composure, when my late friend, Amasa Walker, who was even then a political economist of reputation, though he had not yet published his *Science of Wealth,* recommended to me Bastiat's *Harmonies of Political Economy.* I had scarcely read a dozen pages in that remarkable book, when the field of the science, in all its outlines and landmarks, lay before my mind just as it does to-day. I do not know how much I brought to that result, and how much towards it was derived from Bastiat. I only know that, from that time, Political Economy has been to me

[4] MacLeod, *The History of Economics,* 154.

a new science; and that I experienced then and thereafter a *sense of having found something,* and the cognate sense of *having something of my own to say.* [5]

Our author acknowledges his indebtedness to Bastiat. On land rent, his discussion shows close similarity to that of Bastiat. But he goes farther than Bastiat and entirely abandons the use of the word *wealth* as a scientific term. "The most," he says, "of what is original in my book is an immediate or else an indirect result of absolutely dropping from the start the use of the word 'wealth' as a technical term. So far as I know, I was the very first economist to do this." [6]

He defines a science as a "body of exact definitions and sound principles educed from and applied to a single class of facts or phenomena." [7]

Political economy, in his thinking, is the science which addresses itself to that circumscribed class of facts or phenomena of which value is the characteristic. [8]

We place the field of the science just where Whately places it,—*"Catallactics, or the science of exchanges";* just where the continental Kiehl puts it,—*"Die Lehre von den Werthen," The doctrine of values;* and just where MacLeod locates it, though we do not like the term "quantities" in this connection,—*"The Science which treats of the laws which govern the relations of exchangeable quantities."* Any one of the three following definitions, which are the precise equivalents of each other, namely, *the science of Sales, the science of Exchanges, the science of Value, gives a perfectly definite field to Political Economy.* We shall use the three interchangeably, though for the present emphasizing the last. [9]

By value, Perry means "the relation of mutual purchase established between two services." [10] He says, "Two persons, two things, two desires, two efforts, two

[5] Perry, *Political Economy,* viii-ix, introduction
[6] *Ib.,* x. [7] *Ib.,* 89. [8] *Ib.,* 112-115.
[9] *Ib.,* 112-113. [10] *Ib.,* 131.

estimates, and two satisfactions, form the circle of value." [11] "Value," he says, "is the sole subject of our science. . . . While value always takes its rise in the *desires* of men, it is never realized except through the *efforts* of men, and through these efforts as mutually exchanged." [12]

Having considered his training, his dissent from certain classical views, his idea of the scope and definition of the science, we are prepared to follow his peculiar teaching on the population-rent problem.

The population problem receives little attention at the hands of Perry. He says, "Malthusianism, as it has been called, is really a topic of Physiology and not of Political Economy at all. Political Economy presupposes the existence of persons able and willing to make exchanges, before it begins its inquiries and generalizations. How they came into existence, the rate of their natural increase, and the ratio of this increase to the increase of food, however interesting as physiological questions, have clearly nothing to do with our science." [13]

He satisfies himself with a very brief and inadequate statement of the Malthusian doctrine, [14] and then gives briefly his reasons for dissent. Time and again, in our review of the earlier American economists, we have met the arguments he uses to refute this doctrine.

(a) Population draws not only upon the soil it occupies, but upon the world at large for its support. [15]

(b) Moral and religious training brings men under the influence of reason and affection, and under this influence preventive checks silently and effectually become operative. [16]

[11] *Ib.*, 164. [12] *Ib.*, 165.
[13] *Ib.*, 238. [14] *Ib.*, 238-239.
[15] *Ib.*, 239. [16] *Ib.*

(c) The history of the world shows that food and comforts have more than kept pace with the growth of population. [17]

(d) "He who is the author of the laws is author also of natural counter-workings of them, so that a particular *tendency* towards their coming into conflict is confidently denied." [18]

(e) Each consumer is also a producer. [19]

(f) "The famines of the world have been caused more by the indolence and want of foresight of individuals, and by the maladministrations of governments, than by the law of population." [20]

Perry, at the outset of his discussion on land, points out the vast difference between land as a physical thing and land as a valuable thing. [21] The former is God's free bounty; the latter is produced through human efforts. The "original utility"—the utility of the land as God gave it to us—always remains a free good. No bounty of God is intercepted, through exclusive appropriations by man, in its descent to mankind as a whole. [22] What men receive gratuitously, they must gratuitously transmit. This principle still holds true after all the land has been taken up. [23] "Human motives are such, and everything is so providentially arranged, that men cannot, as a rule, sell God's gifts; it would be derogatory to the Giver, if they could." [24] He further says, "As a matter of fact and experience, lands are absolutely valueless until some portion of human effort has been expended on them, or in reference to them." [25] He argues

[17] *Ib.*
[18] *Ib.*, 239.
[19] *Ib.*, 239-240.
[20] *Ib.*, 240.
[21] *Ib.*, 276.
[22] *Ib.*, 276-8.
[23] *Ib.*, 278.
[24] *Ib.*, 279.
[25] *Ib.*, 279.

that the value of our government lands is due to human effort, due to the facts that they have been surveyed, that local governments have been provided for settlers, and that mail facilities and other privileges have been guaranteed to them. [26]

It is not, then, the "original utility" for which we pay; rather it is the "new utility," or the utility added to the land by means of human effort, that commands a price. [27] Now, if the value of land be due to labor, would it not follow that the value of lands would be in proportion to labor? No; Perry, like Carey, would reply that it is not the original cost of production but rather the cost of reproduction that determines value. He says:

> The progress of capital and inventions enables similar work to be done now at greater advantage, and consequently the results of former work have fallen in value. While, therefore, value in land arises solely in connection with human efforts of some sort standing in some relation to that land, it is important to observe that the value is not always proportioned to those efforts. The efforts may have been misdirected; the desires calculated upon may have taken another turn; the utility sought to be conferred may not find the requisite natural utility underneath; and so, there is a greater diversity in the value of lands than in the amount of efforts expended upon them. [28]

Like Carey, he makes saleable land a commodity for the same reason that a machine is a commodity: in the one case, the free bounty of nature, iron, is transformed by human effort into a machine; in the other case, the free bounty of nature, land, is transformed by human effort into valuable land.

He makes some exceptions, which he terms unimportant, to his theory of land-values. Unusual fertility,

[26] *Ib.*
[27] *Ib.*, 277.
[28] *Ib.*, 280.

excellent locations, lands containing rich mines or water power, are the exceptions cited. Why cite these as exceptions to his theory?

Perry's is an exchange economy according to his own definition; service for service is the central concept in his system. His service-for-service doctrine, as he uses it, is but a crude application of the law of supply and demand. Perry did not thoroughly conceive the cost-of-reproduction doctrine which he borrowed from Carey, because Carey, who originated the cost-of-reproduction as a distinct theory of value, did not have in mind, when he used this idea, the amount of labor it would take to reproduce a waterfall, but rather the amount of value expressed in labor for which this waterfall would exchange. In Carey's thought, the law was general. In Perry's thought, evidently it could refer only to freely reproducable goods. At any rate, if Perry regards these instances as exceptions to his law, it follows that he has no law; for differences in land respecting fertility and situation are characteristic of all lands. Differences in fertility or situation of saleable land is a matter of degree, not of kind. There exists no distinct line of demarcation separating lands in respect to their fertility or situation and placing them in different value-categories.

Perry, like Carey, classes land as capital. He says, "The largest part of all saleable land is nothing more or less than *capital.* Capital is some product reserved as a means to further production; and valuable land is always a product of labor and previous capital, and is generally *reserved* for use in future production, and so is capital under the definition." [29] He does not hold that all valuable land is capital, "but only that large

[29] *Ib.*, 283.

portion of it that is worked or leased or held with a view to an ultimate *profit*." [30] He offers the following examples of capital: factories and business premises, lands and buildings that are rented out, and farms cultivated by their owners or leased to tenants. He tells us that the following are not examples of capital: private houses occupied by their owners and lands kept for mere beauty or convenience. [31]

Thus he declares that a farm is capital whether used by its owner or let to a tenant, but a house used by its owner is not capital, whereas it is capital when leased to a tenant. Also lands held for convenience are not capital. Then it would seem that indirect agents are capital only when held for a commodity return. But this gets him into the further difficulty of harmonizing this into his exchange economy. He says that land leased to another is capital; here money-rent is involved. This involves the erroneous admixture of a usance with the payment for that usance. Further, it will be remembered that Perry casts the word "wealth" out of his treatise. Now, if land held for convenience is not capital, what is it? He says land held for ultimate profit is capital while that held for convenience is not capital. Evidently land held for convenience may earn a profit in the form of unearned increment. At one time, Perry classifies an indirect agent as capital because of the motive in the mind of its owner; again he makes his classification on the basis of a profit-yield. Since Perry classified land as capital, he would, unlike Ricardo, find no distinction between rent and interest; land rents and interest on a money loan would be governed by the same principles. Perry's words are:

[30] *Ib.*
[31] *Ib.*, 284.

The rent of leased lands is the measure of the service which the owner of the land thereby renders to the actual cultivator of it. . . . As land is capital, and as every form of capital may be loaned or rented, and thus become fruitful in the hands of another, . . . the rent of land does not differ essentially in its nature from the rent of buildings in cities, or from the interest of money.[32]

He emphatically denies Ricardo's claim that rent is a differential surplus, that cost under the most unfavorable conditions determines rent, and that rent is a payment for the use of the "original and indestructible powers of the soil," for, says Perry, such powers do not exist.[33] According to his view:

The rent of lands is a simple recompense for the use of a productive instrument, made such by human efforts. . . . Because the owner practices *abstinence* in the lessee's behalf, *rent* is substantially the same as *profits*. . . . Whether tillable lands pay any rent at all, and the *amount* of rent that they pay, always depends, so far forth as commercial considerations control, on the general or average expected price, that is to say, *value*, of *produce*. It is not diversity of soils, nor the law of diminishing return, that causes rent, since these continue as before when rent ceases to be paid; but it *is* the price of produce under demand and supply, that causes rent.[34]

Perry is correct in the assertion that the law of diminishing returns (proportionality) is still operative when particular lands cease to pay rent; but this is far from saying that diminishing returns do not cause rent. It would be a feeble analysis that would stop with the assertion that the price of produce causes rent. It simply puts the true answer a step farther off. Produce would have no price except for its economic scarcity, that is, supply in relation to demand. The cause of economic scarcity is that of the resistance to be encountered

[32] *Ib.*, 288.
[33] *Ib.*, 291-2.
[34] *Ib.*, 292.

in production, or the law of proportionality. Were resistance absent, what of the price problem?

If the "law of diminishing returns" is not a cause of rent, what would be its significance in Perry's analysis? He says, that the portion of the land that is capital must possess all the characteristics of capital, "among these, is the ability to wear out." [35] His is strictly an instrumental concept of capital; and he discusses at some length how "value disappears, and capital wears out." [36]

He goes on to say:

> If the bulk of land be capital, as it is, then we might expect beforehand to find *a law of diminishing return* from land, agricultural labor and skill remaining the same; because all capital is tools, and tools are always wearing out. Increase of labor in connection with any form of capital unimproved by new inventions and uninvigorated by fresh skill, though it may indeed increase the aggregate return, cannot, for the reason just given, *secure an increase proportioned to the increase of the labor.*" [37]

The first sentence just quoted tells us that diminishing returns are due to the fact that capital wears out. In the history of economic thought, various concepts are denominated the law of diminishing returns, but none are wider from the mark than Perry's. Perry differs from Ricardo in that his concept is historical rather than static; he differs from Malthus regarding the manner in which historical diminishing returns are operative. The fact that tools wear out, is Perry's central thought; the central thought in the argument of Malthus was, that, though the land improves, yet a more rapid increase in population would cause a diminution per capita. This statement also affirms that land is subject to diminish-

[35] *Ib.*, 284. This is the first appearance of this crude concept in this study.
[36] *Ib.*, 284-5.
[37] *Ib.*, 285.

ing returns because land is capital; thus Perry differs, it seems, from the classical writers who denied the application of this law to capital goods. The second sentence just quoted, though in opposition to the one immediately preceding it, is a recognition of the universality of this law. It implies a static concept. The quotations present Perry's teaching on this point. From what has been said, it is clear that it is impossible to state precisely what he means by the expression "the law of diminishing returns." We find, in his thought, the concepts of both static and dynamic diminishing returns. The return, in his thought, is at one time a value-return, and at another time he speaks of a commodity or weight-and-tale return. It seems clear that the subtler meaning of this law was absent from Perry's thought.

In his famous speech, "The Foes of the Farmers," to the farmers of Nebraska, Perry said:

> The products of the farm are constantly becoming more valuable relatively to the products of the factory. There are three reasons for this: first, *machinery can be applied more completely in manufactures than in agriculture;* second, *division of labor can be carried further in manufactures than in agriculture;* and, third, *nothing can hasten the time during which the fruits of the earth mature, while the processes of manufacture can all be hurried up.* The result is the price of raw material tends to approach the price of finished products. This one law of Political Economy is the physical law of Progress for the masses.[38]

The thesis of this address was that the results of the law of diminishing returns are more readily realized in agriculture than in other pursuits, and that agricultural conditions are, for the three reasons given, comparatively more static. In this speech, no denial is made of the general application of this law, but rather it is shown

[38] Perry, *The Foes of the Farmers*, 6.

how, through dynamic changes, new conditions arise more readily in manufactures than in agriculture. Thus, while the general application of proportionality is recognized, our author does not fail to observe that the ultimate cause of scarcity-values is the comparative resistance experienced in securing returns from different factors.

This chapter illustrates the danger of departing from the well trodden paths in the field of economics unless one is possessed of rare ability and a comprehensive grasp of the subject. Perry eliminated the word "wealth" and offered nothing in its place. He defined economics in terms of his fundamental concept—a mutual exchange of service for service. What of the exchange of goods whose fabrication is a secret? or whose amount is limited by nature? or which, without labor, have grown through time to great value? or which are controlled by a monopoly? Furthermore, dwellings, parks, or roads which are not held for exchange or for a contractual return, do not come under his definition of value. They are ruled out of his economics. His treatment of land as capital was in keeping with the larger number of the economists under review. Although mistaken as to the meaning of the law of diminishing returns, he was correct in maintaining that this law is applicable to all forms of productive agents. He made little use of this law for the reason that he did not comprehend its relationship to rent. The next chapter will end the study with a résumé of the writings we have thus far reviewed.

CHAPTER X

RÉSUMÉ

WITH two exceptions, the early American economists who advocated the freedom of trade adhered, broadly speaking, to the Ricardian theory of rent. Protective tariff advocates, on the contrary, contested that theory. This is not strange. The tariff was a question of absorbing interest in this country; and the primary purpose of studying economics was to obtain a deeper insight into the tariff. The freedom of trade was considered a logical deduction from Ricardo's theory of rent; and leading statesmen, as well as the economists, based the argument for the freedom of trade upon the Ricardian theory of rent.

WEALTH

We have found that these authors held different and conflicting definitions of wealth. Cardozo and the early nationalists would not limit wealth to things bought and sold. By "wealth," they meant the productive "capacity" of a nation. The American economists of the Classical School, would, on the whole, limit wealth to privately owned commodities. Wealth, according to the Carey School, is the power to control the always gratuitous services of nature—the control of man over nature. Bowen and Tucker would include in their definitions, immaterial as well as material products. Perry claimed it a contribution on his part to omit the word "wealth" from his economics.

VALUE

The economists Wayland, Vethake, Cooper, and the others following in the lead of Ricardo, accounted for value in terms of cost. But, with hardly an exception, they, in the body of their writings, made the law of supply and demand (with emphasis on demand) the regulator of value. Vethake, Newman, Bascom, and even Bowen made the value of a good, in harmony with Adam Smith, depend upon either the amount of labor for which it could be exchanged or that went to produce it. The Carey School held a cost-of-reproduction theory of value. George Tucker and Willard Phillips were surely the ablest exponents of the opinions held by the majority of the early American economists. They argued against the labor-cost theory of value, and limited value to things, material or immaterial, subject to purchase and sale. They held persistently to the view that value is subjective and individualistic. This view was carried to its logical conclusion in maintaining that a commodity need not necessarily have utility in order that we attach value to it. Whether utilities be real or imaginary, it is enough that we think commodities have utilities for us to attach value to them. Phillips thinks that the desire to obtain any particular thing gives it its value, and the motives of such desires are as various and numerous as the appetites, tastes, passions, wants, and caprices of mankind. As value is created by this desire, so it is limited by its strength and intensity. Tucker argues that value, in its largest sense, means the feeling with which we regard whatever can render us benefit, or afford us gratification. In this sense, it is an emotion of our minds comprehending all that can impart pleasure to our senses, our tastes, our

desires: as health, talents, friendships, reputation, land, money, and goods. It varies according to the endless diversities of objects, and of human tastes or opinions, and it is susceptible of all degrees of intensity, from a simple wish to the most passionate desire.

CAPITAL

With few exceptions, we have found capital defined as privately owned means of production. The value rather than the technological concept has been emphasized. The value-aspect of capital has been accounted for in two ways: the scarcity of capital goods, and the earning power of such goods. The scarcity of capital has been accounted for by: scarcity of peculiar skill, secret processes, legal rights, the natural desire for present consumption, and the large cost required to produce some kinds of capital goods. These limiting agencies, it will be seen, form the basis for the quasi-rent doctrine which of late has come to the fore. In a number of instances, notably in Tucker's writings, the quasi-rent idea, though discussed under the terminology of profits, finds clear treatment. The writers, on the whole, think of the value of capital in terms of earning power. And, limiting the supply of land to improved land, it is notable that from Raymond to Perry inclusive, land has been regarded as one of the forms of capital. The reason for this view is to be found in the environment of the writers. In America were lacking the customs and ideas as to the capitalist and the landholding classes, originating in the contrast between town life and country life in the Middle Ages. Here the lands were subject to frequent purchase and sale, farms were hewn out of the forest, free lands were converted into valuable pos-

sessions through internal improvements and the arts of husbandry, and changes relative to the market and variations in yield were due to human agency.

POPULATION

At the very outset, the student of early American economics must appreciate the mal-adjustment of means to ends which then existed in this country for the production of wealth. To utilize the abundance of natural resources, labor and capital were in great demand. There were economic reasons for the wanton earth-butchery which characterized this period. A limitless breadth of arable land and a meager supply of labor and accumulated capital, were conditions that made land almost a free good and gave to labor a disproportionate value. Not the preservation of natural resources, but the best utilization of labor and capital, is the dictate of wisdom under such circumstances.

The theories of population held by our economists were also in keeping with their environment. These theories may be grouped under the following titles:

(1) The theory that faulty distribution is the origin of poverty.

(2) The theological theory.

(3) The theory of the adjustment of productive factors.

The prevailing opinion was that poverty is due not to the niggardliness of nature but to faulty distribution. In 1847, the "fate of the Irish and Scotch appeared the more terrible because they starved in the midst of plenty." Raymond summarizes the prevailing opinion in these words: "It matters not how abundant food may be; if it all belongs to a small portion of the nation,

and the rest of the nation has nothing to buy it with, a larger portion will be left to starve, unless some provision is made by law for the distribution of it among the poor." It was by this defect and not by the niggardliness of nature that these economists accounted for the poverty of England. They insisted that population is not supported on the soil it occupies. A civilized society is so constructed that this could not be. This principle was used to support the argument for a territorial division of labor, to deny the idea of the niggardliness of nature, and to support the advocacy of a large population to subdue the land and utilize its resources.

The theological theory is a conspicuous element of American economic thought. Contrary to Malthus, those holding this theory repeat the command to replenish the earth. Divine relationships, exemplified in physical and social laws, necessitate the division of labor and exchanges. Perry, Cardozo, Bowen, and others seem to work out their theories of value on the proposition that "God is a giver and not a seller," and that, therefore, value originates not in what God has done but in what man has done. Procreation is governed by divine laws. The Author of the positive forces is also the Author of the negative forces; therefore numbers will be harmoniously adjusted to the resources of the earth, and man need not interpose his agency. God in his all-goodness will provide for the race, and will originate no laws forcing us to starve, as Malthus claims. If barbarian tribes waste away for want of food, this is but a beneficent arrangement of Providence whereby civilized peoples shall occupy the farthest corners of the earth.

The ideal of a proper adjustment of productive factors became an argument for a larger population in America.

Preaching the doctrine of historical increasing returns rather than historical diminishing returns, American economists felt the necessity for a large population in order to utilize the world's natural resources. Population is a cause of abundance rather than of scarcity. The division of labor with the consequent influences of invention and skill result from a large population and increase with the growth of numbers. Following in the lead of this dynamic progression, it is found that man's desires mount with every additional opportunity for gratification. The growth of desires in the direction of great variety and superior quality of products necessarily brings into utilization still further productive energy. But what is the limit of this dynamic progression? It will cease when the population factor of production becomes proportionately as great as are the other factors of production. Bowen taught that, in sparsely settled regions, children are a blessing to parents and not a burden, but that, with the increase of numbers, the birth rate will decline. Tucker proved by the statistical method that the density and the rate of increase of population vary in inverse ratios. When the earth is duly populated, numbers will remain stationary. Cardozo, Wayland, Phillips, and Walker believed that population always adjusts itself to the existing state of industrial development. The Carey School, following in the lead of Herbert Spencer, maintained that man's cerebral and reproductive functions became antagonistic through development. Over-population will be avoided because the power to maintain life varies inversely with the power to propagate the species. The conclusion of these teachings is, that the forces destructive of population and the forces preservative of it tend toward equili-

brium. The ultimate check of population is a harmonious adjustment of all the factors of production.

The phrase "population problem" has been employed in a number of different senses. It has been used to signify the relationship between the birth rate and the death rate, increasing density, poverty, the mal-distribution of numbers over the earth or in the different fields of employment, a faulty distribution of wealth, and problems caused from immigration. From different definitions, unlike conclusions may be logically advanced. To advance one line of argument is not always to deny the correctness of another line of reasoning. The essential thought of Malthusianism was not necessarily denied by our economists who preached that increasing numbers meant increasing prosperity under the then existing conditions in America. Because land was the short factor in England and population the short factor in America, it might well follow that what would be a truth in England would be an untruth in America. In both countries, however, the problem was one of adjusting the population to economic environment.

RENT

Ricardo's doctrine of rent was thought by American writers to be inapplicable to this country. They claimed that this theory was invented to suit the conditions of England. It could not hold in the United States because we had no distinct class supported by wages, and because a growth of population here caused increasing returns and lower prices.

It is worth while to review a few of the criticisms made by American writers upon Ricardo's rent-doctrine. The origin of rent is not found in the different qualities

of soil but in the scarcity of soil suited to different kinds of crops. All lands under cultivation pay a rent because they are valuable. There are no original and indestructible qualities of the soil. Like machinery, agricultural lands are products of labor. Society is so organized that one industry aids other industries; therefore the interests of classes are not antagonistic in nature. Ricardo's theory is a fallacy of inversion: the poorest land brought under cultivation does not determine price, but price determines the poorest land that will be brought under cultivation. The order of cultivation is from poor land to rich and not from rich to poor as Ricardo teaches. Demands for produce increase more rapidly than do improvements in husbandry; therefore improvements augment, rather than lower rent. American economists for the most part abandoned the threefold classification of productive factors. Land was considered a form of capital. They had varying definitions of capital, yet the value of land and its uses were treated by the same principles that regulate the value of artificial agents and their uses.

The prevailing view of American economists was that rent is governed by the law of supply and demand. The price paid for the services of land is determined by the same principles that fix the market prices of goods. There was a great difference between Ricardo and his American critics in their analyses of rent-determining forces. Ricardo reasoned as if men were equal and as if they were creatures of circumstances. Our economists recognized variations in the efficiency of competitors, and reasoned that environment is largely a human creation. Ricardo's formula was based on the idea that rent is determined and measured by natural laws. Emphasizing the human agency, some American writers

spoke of agricultural returns as products of labor, and argued that contract rent results, as other market prices, from competition among men of unequal strength. A number of these writers, Cooper in particular, so emphasized differences in men as clearly to suggest Walker's differential theory of profits.

Accurate terminology and clear thinking made it a matter of significance whether rent is defined as a net return or defined as a price paid for the use of indirect agents. These concepts obey different principles. Net returns to the farmer who tills his own soil is usance and not rent. The price paid for the use of land is rent. The one is legal or contractual in nature and does not vary during the contract period; the other is a problem in production involving the risks of seasons, pests, labor conditions, distributive costs, and market prices. American economists overlooked this distinction although the weight of their emphasis was on the idea that rent is a contract payment.

Their distinction between rent and interest was only in name. Prices paid for the use of land and prices paid for the use of capital are fixed by the same laws. Many of these authors spoke of rent as a per cent, and reasoned that the value of land is determined through the price of its yield. Adhering to the principle of competition, they argued that the price of land as determined by the value of its rental could be measured by the cost of reproduction. The Carey School makes the cost of reproduction a measure and not a cause of value.

On the whole, the early American economists presented the problem of returns from the dynamic point of view. They did not reason with respect to the returns of a limited area at a given stage of industrial development. They surveyed the whole industry over a long

period of time. Changes through time such as developments in the arts and in science, substitutions, superior organizations, and the like, form a basis of reasoning entirely different from the static situation usually assumed by Ricardo. History substantiates the truth of their contention that the principle of historical increasing returns is applicable both to agriculture and to manufacturing. To affirm dynamic increasing returns is in no sense to deny static diminishing returns (proportionality). We have seen that the method of reasoning used by our economists took for granted and affirmed the static law in the sense in which Ricardo mainly used it.

To avoid reading new trains of thought into these writings, I shall assume responsibility for the following remarks although their substance is deduced from the preceding pages. Many of these writings contain by implication the principle that the supply of land is measured in yield rather than in area. An acre yielding 100 is as great a part of the land-supply as are ten acres whose total yield is 100. The land-power to do the land-work is the supply of land just as the money-power to do the money-work is the supply of money. The land-supply is increased by new discovery of land, by the better utilization of land, by the increase of transportation facilities that make new lands available, by scientific methods, or the substitution of rich for poor lands, by intensive or extensive utilization, or by any means which convert potential into effective uses. Clear thinking demands that we distinguish between "the amount of land" and the "supply of land."

Whether on old or on new lands, additional uses resist being harnessed. Resistance must be overcome in the obtaining of additional uses from any productive agent.

The principle of resistance is universal in the field of production. Numerous indirect agents must work together to produce wealth. Now that all agents are subject to resistance, it follows that there are no definitely fixed and limited factors of production. In other words, the productivity of any factor varies as the other cooperating factors with it are varied. The adjustment of various factors to each other in a productive enterprise must be worked out upon the general principle of resistance.

The dynamic problem which these economists conceived was one of progress, one in which the law of substitution was ever present. Properly to adjust factors to one another and to adjust the whole establishment to the extent of the market are problems inseparable from the principle of substitution. The cause of substitution is the elastic limit of the productivity of an agent, the increasing resistance encountered in augmenting the returns from a factor. The basis of the idea of substitution which pervades the writings of the American economists under review, is the principle of proportionality. No economist reviewed has denied "the law of diminishing returns" in the sense in which Ricardo conceived this law. Those critics who have given a contrary impression have, without realizing it, made the common shift from static conditions on a limited area to dynamic conditions covering the whole industry over a long period of time.

BIBLIOGRAPHY

ADLER, Abraham. Ricardo und Carey in ihren ansichten über die grundrente. Leipzig, 1873.

AGISSIZ, L. and Gould, A. A. Outlines of Comparative Physiology. London, 1855.

ANDERSON, James. Observations on the means of exciting a spirit of national industry; chiefly intended to promote the Agriculture, Commerce, Manufactures, and Fisheries of Scotland. In a series of letters to a friend. Dublin, 1779, 2 v.

BAGEHOT, Walter. Economic Studies, ed. by R. H. Hutton. London, 1880.

BAIRD, Henry Carey. Political Economy. New York, 1875.
———Carey and Two of his Recent Critics, Eugene V. Bohm-Bawerk and Alfred Marshall. Proceedings of the American Philosophical Society (Phila.), XXIX, 166-173.

BASCOM, John. Political Economy. New York, 1859.
———Social Theory. New York, 1895.

BENTHAM, Jeremy. The Theory of Legislation, ed. by R. Hildreth. London, 1896.

BOGART, E. L. The Economic History of the United States. New York, 1909.

BONAR, James. Letters of David Ricardo to Thomas Robert Malthus, 1810-1823. Oxford, 1887.
———Malthus and His Work. New York, 1885.
———Philosophy and Political Economy in Some of Their Historical Relations. New York, 1893.
———Where Ricardo Succeeded and Where He Failed. American Economic Association, bulletin, 4th series, I, No. 2, 85-96.

BONAR, James, and Hollander, J. H. Letters of David Ricardo to Hutchins Trower and Others, 1811-1823. Oxford, 1899.

BOWEN, Francis. Principles of Political Economy, Boston, 1856.
———American Political Economy. New York, 1885.

BULLOCK, C. J. Selected Readings in Economics. Boston, 1907.
———The Variation of Productive Forces. Quarterly Journal of Economics, XVI, 473-513.

BURGESS, J. W. The Middle Period, 1817-1858. New York, 1905.

CAIRNES, J. E. The Character and Logical Method of Political Economy. 2d ed., New York, 1875.
———Some Leading Principles of Political Economy Newly Expounded. New York, 1874.

CALLENDER, G. S. Selections from the Economic History of the United States, 1765-1860, with introductory essays. Boston, 1909.

CANNAN, Edwin. A History of the Theories of Production and Distribution in English Political Economy from 1776-1848. 2d ed. London, 1903.

———The Origin of the Law of Diminishing Returns. Economic Journal, II, 53-69.

CARDOZO, Jacob Newton. Notes on Political Economy. Charleston, 1826.

———Reminiscences of Charleston. Charleston, 1866.

CAREY, H. C. Essay on the Rate of Wages; with an examination of the causes of the difference in the condition of the labouring population throughout the world. Phila., 1835.

———The Harmony of Interests, Agricultural, Manufacturing, and Commercial. Phila., 1851.

———Past, Present and Future. Phila., 1848.

———Principles of Political Economy. Phila., 1837-1840, 3 v.

———Principles of Social Science. Phila., 1888. 3 v.

———The Unity of Law; as exhibited in the relations of Physical, Social, Mental, and Moral Science. Phila., 1872.

———Wealth: Of What Does It Consist? Penn Monthly Magazine. October, 1870.

CAREY, Mathew. Autobiographical Sketches. Phila., 1829.

———Essays on Political Economy. Phila., 1822.

CARPENTER, W. B. Principles of Physiology, General and Comparative, 3d ed. London, 1851.

CHALMERS, T. On Political Economy in Connexion with the Moral State and Moral Prospects of Society. Glasgow, 1832.

CHEYNEY, E. P. An Introduction to the Industrial and Social History of England. New York, 1910.

CLARK, J. B. Capital and Its Earnings. American Economic Association publications. III, No. 2, 81-149.

———Distribution as Determined by a Law of Rent. Quarterly Journal of Economics, V, 289-318.

COHN, Gustav. A History of Political Economy, trans. by J. A. Hill. Phila., 1894.

———System der Nationalökonomie, ein Lesebuch für Studirende. Stuttgart, 1885. 2 v.

COLTON, Calvin. Public Economy for the United States. Cincinnati, 1848.

COLWELL, S. The Ways and Means of Payment. Phila., 1859.

COMAN, Katherine. The Industrial History of the United States. New York, 1910.

COMMONS, John R. The Distribution of Wealth. New York, 1905.

COOPER, Thomas. Lectures on Political Economy. Columbia, S. C., 1826.
———The same with additions. Columbia, S. C., 1829.
COSSA, Luigi. An Introduction to the Study of Political Economy. London, 1893.
CUNNINGHAM, G. G. The English Nation; a History of England in the Lives of Englishmen. V. Edinburgh, 1863-1868.
CUNNINGHAM, W. The Growth of English Industry and Commerce. Cambridge, 1896. 2 v.
DAVENPORT, H. J. Value and Distribution. Chicago, 1908.
DEVAS, C. S. Political Economy. 2d ed., New York, 1901.
DEW, Thomas R. The Great Question of the Day. Letters from President Thomas R. Dew, of William and Mary College, Virginia, to a Representative in Congress from that state; on the subject of the Financial Policy of the Administration. Washington, 1840.
———Lectures on the Restrictive System; delivered to the Senior Political Class of William and Mary College. Richmond, 1829.
DUNBAR, C. F. Economic Essays, O. M. W. Sprague, editor. New York, 1904.
———Henry C. Carey. Palgrave's Dictionary of Political Economy. I, 225-226.
———Ricardo's Use of Facts. Quarterly Journal of Economics. I, 474-476.
EDMOND, P. R. An Enquiry into the Principles of Population, exhibiting a system of regulations for the poor, designed immediately to lessen and finally to remove the evils which have hitherto pressed upon the Labouring Classes in Society. London, 1832.
ELDER, William. Conversations on the Principal Subjects of Political Economy. Phila., 1882.
———A Memoir of Henry C. Carey. Phila., 1880.
———Questions of the Day. Economic and Social. Phila., 1871.
ELLIOTT, O. L. The Tariff Controversy of the United States, 1789-1833. Palo Alto, Cal. 1892.
ELY, R. T. Outlines of Economics. New York, 1893.
———The same, revised ed. New York, 1909.
———Past and Present of Political Economy. Johns Hopkins University Studies, ed. series, No. III, Baltimore, 1884.
ENSOR, George. An Inquiry the Population of Nations: Containing a Refutation of Mr. Malthus' Essay on Population. London, 1818.
ESPINAS, A. V. Historie des Doctrines Economiques. Paris, 1891.
EVERETT, A. H. New Ideas on Population: With Remarks on the Theories of Malthus and Godwin. Boston, 1826.

FERRARA, Francesco. Esame Storico-Critico di Economisti e Dottrine Economiche. I, Pt. 2, 675-690. Rome, 1889.

FETTER, F. A. The Essay of Malthus: A Centennial Review. Yale Review, VII, No. 2, 153-167.

———Discussion of the Phenomena of Dynamics. American Economic Association publications, 3d series, XI, No. 1, 130-135.

———Passing of the Old Rent Concept. Quarterly Journal of Economics, XV, 416-455.

———Population or Prosperity—Annual Address of the President. American Economic Review, III, No. 1, 5-19.

———The Principles of Economics. New York, 1904.

———The Relation Between Rent and Interest. Publications of American Economic Association. 3d series. V, Pt. 1.

FURBER, H. J. Geschichte und Kritische Studien zur Ehtwickelung der ökonomischen Theorien in Amerika. Halle, 1891.

GANIHL, Charles. An Inquiry into the various systems of Political Economy; their advantages and disadvantages: and the theory most favorable to the exercise of national wealth, trans. from the French by D. Buileau. New York, 1812.

GEORGE, Henry. Progress and Poverty. New York, 1885.

GIBSON, A. H. Natural Economy and Cosmopolitan Economy. New York, 1909.

GIDE, C., and Rist, C. Histoire des Doctrines Économiques depuis les Physiocrats jusqu' à nos jours. Paris, 1909.

GODWIN, William. Essay on Population. London, 1873.

GRAY, S. Happiness of the States: Or, an Inquiry Concerning Population, the modes of subsisting and employing it, and the effects of all on human happiness. London, 1815.

GREELEY, Horace. Essays Designed to Elucidate the Science of Political Economy. Phila., 1870.

HADLEY, A. T. Economics. New York, 1906.

HALE, W. H. Useful Knowledge for the Producers of Wealth, etc. New York, 1833.

HANEY, Lewis H. History of Economic Thought. New York, 1911.

———The Ricardo Centenary Discussion. American Economic Association, bulletin 4th series, I, No. 2, 98-102.

HIRST, M. E. Life of Friedrich List. New York, 1909.

HOBSON, J. A. The Law of the Three Rents. Quarterly Journal of Economics, V, 263-288.

HOLLANDER, J. H. Agricultural Depression in England. Yale Review, VI, No. 4, 409-420.

———David Ricardo, A Centenary Estimate. Baltimore, 1910.

———Letters of David Ricardo to John Ramsay McCulloch, 1816-1823. Publications of the American Economic Association, 1st series, X, Nos. 5-6.

———The Work and Influence of Ricardo. American Economic Association bulletin, 4th series, I, No. 2, 71-84.

INGRAM, J. K. A History of Political Economy. 2d ed., New York, 1909.

JARROLD, Thomas. Dissertation: Man, Philosophical, Physiological, and Political. In Anser to Mr. Malthus. London, 1806.

JENKS, J. W. Henry C. Carey als Nationalökonom. Jena, 1885.

JEVONS, W. S. Theory of Political Economy. London, 1871.

JOHNSON, A. S. Rent in Modern Economic Theory. American Economic Association publications, 3d series, III, No. 4.

———The Ricardo Centenary Discussion. American Economic Association bulletin, 4th series, I, No. 2, 97-98.

JOHNSON, E. R. American Railway Transportation. New York, 1904.

JONES, Richard. Peasant Rents. Economic Classics ed. by W. J. Ashley. New York, 1897.

KEYNES, J. N. The Scope and Method of Political Economy. 2d ed., London, 1897,

LA BORDE, Maximilian. History of South Carolina College, from its incorporation, Dec. 19, 1801, to Dec. 19, 1865, including Sketches of the Presidents and Professors. . . . Charleston, S. C., 1874.

LAUDERDALE, Lord. An Inquiry into the Nature and Origin of Public Wealth and into the means and causes of its increase. Edinburgh, 1864.

LEROY-BEAULIEU, Paul. Répartition des Richesses, Paris, 1882.

LESLIE, T. E. C. Political Economy in the United States. Fortnightly Review, XXVIII (Old Series XXXIV), 488-509.

LIST, Friedrich. National System of Political Economy. With preliminary essay and notes by S. Colwell. Phila., 1856.

LIVERMORE, C. H. Carey and his Social System. Political Science Quarterly, V, 553-582.

MACLEOD, H. D. The History of Economics. London, 1896.

MCCULLOCH, J. R. The Literature of Political Economy. London, 1865.

———A Selected Collection of Scarce and Valuable Economic Tracts. London, 1859.

———Works of David Ricardo. London, 1871.

MCVICKAR, John. Outlines of Political Economy, being a republication of the article upon that subject contained in the Edinburgh Supplement to the Encyclopedia Britannica, together with notes explanatory and critical and a summary of the science, New York, 1825.

MALTHUS, T. R. An Essay on the Principles of Population. 5th ed., London, 1817.

———The Nature and Progress of Rent. Being a reprint edited by J. H. Hollander. Johns Hopkins Press. Baltimore, 1903.
———Principles of Political Economy considered with a view to their practical application. London, 1820.

MARSH, G. P. The Earth as modified by Human Action. Being a last revision of *Man and Nature*. New York, 1898.

MARSHALL, Alfred. Principles of Economics, an introductory volume. 6th ed. London, 1910.

MILL, J. S. Principles of Political Economy, with some of their applications to Social Philosophy. Ashley ed. London, 1909.

NEILL, C. P. Daniel Raymond; an Early Chapter in the History of Economic Theory in the United States. Johns Hopkins University Studies in Historical and Political Science, 15th series, No. 6.

NEWMAN, Samuel P. Elements of Political Economy. New York, 1835.

NORDHOFF, Charles. Politics for Young Americans. New York, 1875.

OPDYKE, George. A Treatise on Political Economy. New York, 1851.

OWEN, Robert. Moral Physiology, a brief and plain treatise on the population question. 1833.

PANTALEONI, M. Phenomena of Economic Dynamics. American Economic Association publications, 3d series, XI, No. 1, 112-122.

PATTEN, S. N. Interpretation of Ricardo. Quarterly Journal of Economics, VII, 322-352.
———Malthus and Ricardo. American Economic Association publications, 1st series, IV, No. 5, 333-358.
———The Premises of Political Economy. Phila., 1885.

PERRY, A. L. Political Economy. 18th ed., New York, 1883.
———The Foes of the Farmer (an address) Published by State Board of Agriculture of Nebraska, 1874.

PHILLIPS, Willard. A Manual of Political Economy. Boston, 1828.
———Propositions Concerning Free Trade and Protection. Boston, 1850.

PICKERING, John. The workingman's Political Economy, founded upon the principles of immutable justice, and the inalienable rights of man; designed for the promotion of national reform. Cincinnati, 1847.

PIERSON, N. G. Principles of Economics, trans. by A. A. Wotzel. London, 1902.

PLACE, Francis. Illustrations and Proofs of the Principle of Population; including an examination of the proposed remedies of Mr. Malthus, and a reply to the objections of Mr. Godwin and others. London, 1822.

PURVES, George. (Pseud. of S. Gray.) The Principles of Population and Production investigated, and the question: does population regulate subsistence, or subsistence population . . . and shall government encourage or check early marriage . . . discussed. (Miscellaneous Statistics.) London, 1818.

RAE, John. Life of Adam Smith. New York, 1895.

———The Sociological Theory of Capital: being a complete reprint of the New Principles of Political Economy, 1834, by John Rae . . . edited with biographical sketches and notes by Charles Whitney Mixter. New York, 1905.

RAYMOND, Daniel. The Elements of Constitutional Law and Political Economy, 4th ed., Baltimore, 1840.

———The Elements of Political Economy in two parts. 2d ed., Baltimore, 1823.

———Thoughts on Political Economy in two parts. 1st ed., Baltimore, 1820.

REYNOLDS, J. S. Practical Observations on Ricardo's Principles of Political Economy and Taxation. London, 1822.

RICARDO, David. Principles of Political Economy and Taxation. Gonner ed., London, 1908.

ROSHERR, W. Principles of Political Economy. Chicago, 1882.

SADLER, Michael T. The Law of Population; a treatise in six books; in disproof of the superfecundity of human beings, and developing the real principle of their increase. London, 1830. 2 v.

SAY, J. B. A Treatise of Political Economy. 4th American ed., Phila., 1830.

SCHMOLLER, Gustav. Grundriss der Algemeinen Volkswirtschaftslehre. Leipzig, 1901.

———Jahrbuch für gesetzgebung, verwaltung und volkswirtschaft im Deutschen Reich. Leipzig, 1877.

SENIOR, N. W. Two Lectures on Population, delivered before the University of Oxford in 1828. Added a correspondence between the author and T. R. Malthus. London, 1831.

———An Outline of Political Economy. London, 1836.

———Three lectures on the Cost of Obtaining Money, and some effects of paper money. London, 1830.

———Three lectures on the Rate of Wages. London, 1831.

SEWALL, H. R. The Theories of Value before Adam Smith. American Economic Association publications. 3d series, II, No. 3.

SHAILER, N. S. Man and the Earth. New York, 1905.

SHERWOOD, Sidney. Tendencies in American Economic Thought. Johns Hopkins University Studies in Historical and Political Science, 15th series, No. 12.

SIDGWICK, Henry. Principles of Political Economy. 3d ed. London, 1901.

SMITH, Adam. An Inquiry into the Nature and Causes of the Wealth of Nations. Cannan ed., New York, 1904. 2 v.

SMITH, E. Peshine. A Manual of Political Economy. New York, 1853.

SPENCER, Herbert. A theory of Population, deduced from the general law of animal husbandry. Westminster Review, April, 1852, new series, I, 468-501.

STEUART, Sir James. An Inquiry into the Principles of Political Economy. London, 1767.

TAUSSIG, F. W. Capital, Interest, and Diminishing Returns. Quarterly Journal of Economics, XXII, 333.

———State Papers and Speeches on the Tariff. Cambridge, 1892.

TAYLOR, H. C. The Ricardo Centenary Discussion. American Economic Association bulletin, 4th series, No. 2, 102-109.

THOMPSON, R. E. Elements of Political Economy, with special reference to the industrial history of nations. Phila., 1882.

———Henry C. Carey. American Supplement to the Encyclopedia Britannica. New York, 1883. 720-723.

———Social Science and National Economy. Phila., 1875.

THUNEN, J. H. Der Isolirte Staat in Beziehung auf Landwirthschaft und Nationalökonomie, oder Untersuchungen über den einfluss, den die Getreidepreise, der Reichtum des Bodens und die Abgaben auf den Acerbau ausuben. Hamburg, 1826.

TUCKER, George. Correspondence with Alexander H. Everett on Political Economy, 1845.

———The Laws of Wages, Profits, and Rent, Investigated. Phila., 1837.

———Political Economy for the People. Phila., 1859.

———Progress of Population and Wealth in the United States in fifty years as exhibited by the Decennial Census, taken in that period. New York, 1843.

———Theory of Profits. Merchants' Magazine and Commercial Review, II.

TURNER, J. R. Henry C. Carey's Attitude toward the Ricardian Theory of Rent. Quarterly Journal of Economics, XXVI, 644-672.

VALE, G. Manual of Political Economy, a supplement to the Diamond. New York, 1841.

VETHAKE, Henry. An Essay on the Moral Relations of Political Economy. The Annual of the Board of Education of the Presbyterian Church in the United States, ed. by Rev. John Breckenridge. Phila., 1835.

———The Principles of Political Economy. Phila., 1838.

WADE, John. History of the Middle and Working Classes with a popular exposition of the Economical and Political Principles which have influenced the past and present condition of the industrial order. 3d ed. London, 1835.

WALKER, Amasa. The Science of Wealth, a manual of political economy. 4th ed. Boston, 1866.

WALKER, F. A. The General Characteristics of American Agriculture. Tenth Census of the United States, III, xxxi-xxxiii. United States Census, 1890.

———Land and its Rent, Boston, 1883.

———Memoir of Amasa Walker (Reprint from New England Historical and Genealogical Register for Apr., 1888). Boston, 1888.

WARE, Nathaniel. Notes on Political Economy Applicable to the United States, signed by a Southern Planter. New York, 1844.

WAYLAND, Francis. The Elements of Political Economy. (Copyrighted 1837). Boston, 1859.

WEST, Sir Edward. The Application of Capital to Land. Being a reprint edited by J. H. Hollander. Johns Hopkins Press, Baltimore, 1903.

WAYLAND, F., and Wayland, H. L. Memoir of the Life and Labors of Francis Wayland, President of Brown University. New York, 1868. 2 v.

WEST, Sir Edward. The Application of Capital to Land. Being a reprint edited by J. H. Hollander. Johns Hopkins Press, Baltimore, 1903.

WETZEL, W. A. Benjamin Franklin as an Economist. Johns Hopkins University Studies in Historical and Political Science, 13th series, No. 9. Baltimore, 1895.

WHITTAKER, A. C. History and Criticism of the Labor Theory of Value in English Political Economy. Columbia University Studies, XXIX.

WILSON, Marcius. A Treatise on Civil Polity and Political Economy. New York, 1838.

WILSON, W. D. First Principles of Political Economy with reference to statesmanship and the progress of civilization. Phila., 1875.

WRIGHT, C. D. The Industrial Evolution of the United States. Meadville, 1895.

PERIODICALS AND GENERAL WORKS OF REFERENCE

American Economic Review, III, No. 1. Princeton.
American Historical Review, VI. New York.
Appleton's Encyclopaedia of American Biography. New York, 1898.
Blackwood's Edinburgh Magazine, XVII. Edinburgh.
American Economic Association Bulletin, 4th series, I, No. 2, Princeton, Apr., 1911.
Dictionary of National Biography. London, 1895.
Economic Journal, II, 53-69, (1892), and IV, 249-261, 409-423, (1894). London.
Emporium, I-II. (1813-1814). Philadelphia.
Encyclopaedia Britannica, 11th ed. V. Cambridge, 1910.
Fortnightly Review, XXVIII (Old series, XXXIV). London.
Harper's Encyclopaedia of United States History. New ed., New York, 1912.
Hunt's Merchant Magazine and Commercial Review, XVI. New York, 1847.
Lamb's Biographical Dictionary of the United States. Boston, 1900.
Nation, V. (New York) (Why Political Economy has not been cultivated in America, pp. 255-256.)
National Encyclopaedia of American Biography, New York, 1897.
New International Encyclopaedia. New York, 1912.
News and Courier, Charleston, S. C. July 25, 1876.
Nile's Weekly Register. Baltimore.
North American Review, XII, XVII, XXII, XXIV, XXV, XXXII. New York.
Palgrave, R. H. I. Dictionary of Political Economy. London, 1899. 3v.
Penn Monthly Magazine. Philadelphia, October 1870.
Political Science Quarterly, V. New York, 1890.
American Philosophical Society Proceedings, XXIX. Philadelphia.
Publications of the American Economic Association, 1st series, III, IV, VIII; 3rd series, II, III, V, X, XI.
Southern Historical Society Publications, II. Washington.
Quarterly Journal of Economics, I, V, VII, XV, XVI, XXVI. Cambridge.
Richmond Enquirer, Richmond, July 1, August 26, 30, Sept. 6, 9, Oct. 13, Dec. 6 of 1825.
Southern Review, I, VI, VIII. Charleston, S. C.
Stoddard's American Supplement to Encyclopaedia Britannica, I. New York, 1883.
Twelfth Census of the United States, I, III.
Twentieth Century Biographical Dictionary of Notable Americans. Boston, 1904.
Yale Review, VI, VII. New Haven.

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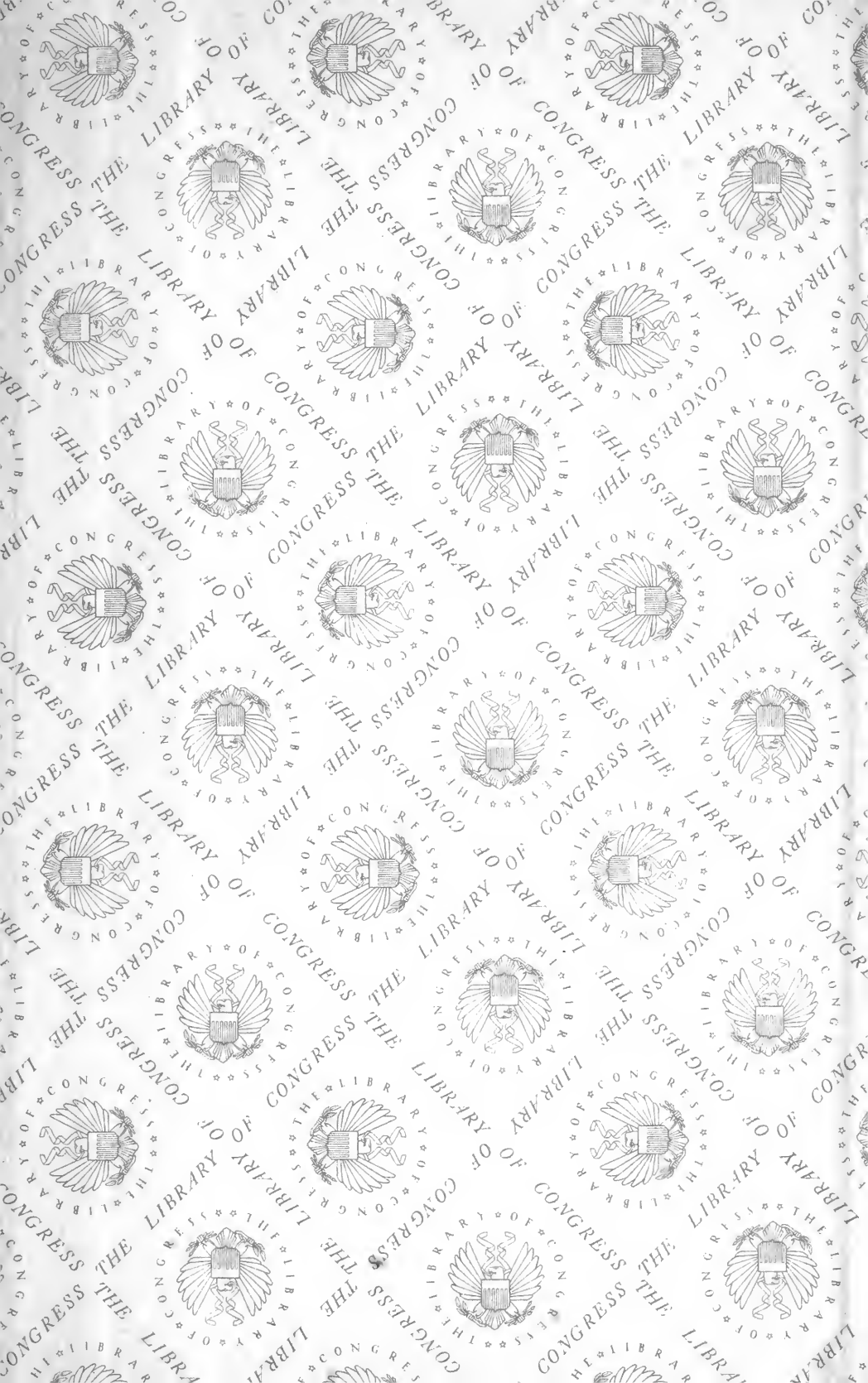
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